

TRADITIONAL BUILDING

celebrating
30
YEARS

Divine Spaces

SAARINEN'S
DESIGN IN
MINNEAPOLIS

Q&A WITH
THOMAS
PHEASANT

PLUS
HISTORIC STAINED GLASS
CAST STONE FOR BUILDINGS
PROPER PAINTING TECHNIQUES

PRST STD
U.S. Postage
PAID
Long Prairie, MN
Permit No. 67

Change service requested.
Traditional Building
5720 Franklin Parkway
Boulder, CO 80301





DECORATING AND RESTORING AMERICA'S ARCHITECTURAL TREASURES SINCE 1889



Circa 1914



Before



Rendering

With a unified artistic vision, the Studios' experienced staff of artists and craftsmen offer a variety of specialties to be a single source for all of a church's aesthetic needs. Since 1889, Conrad Schmitt Studios has been dedicated to providing beauty, quality and longevity in every endeavor.

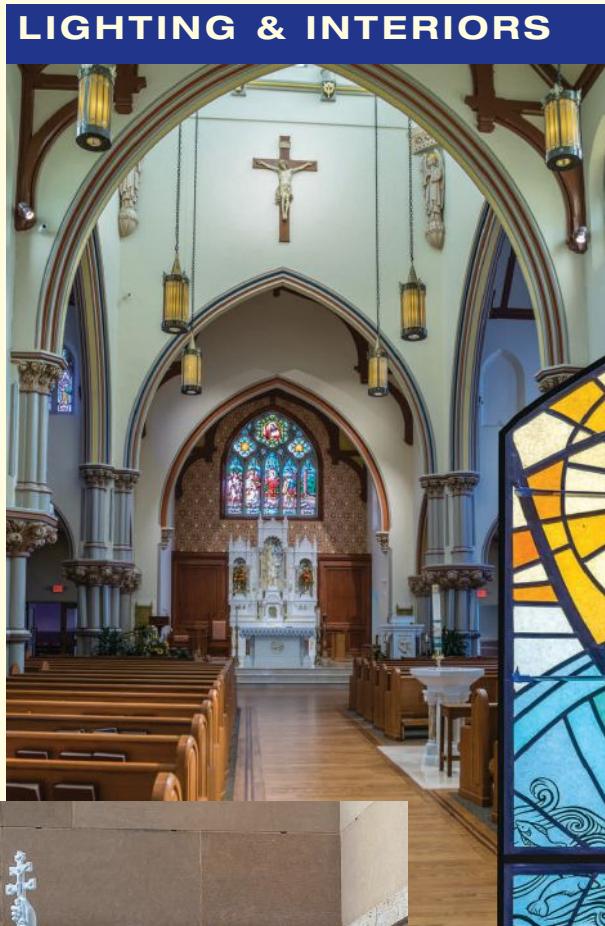
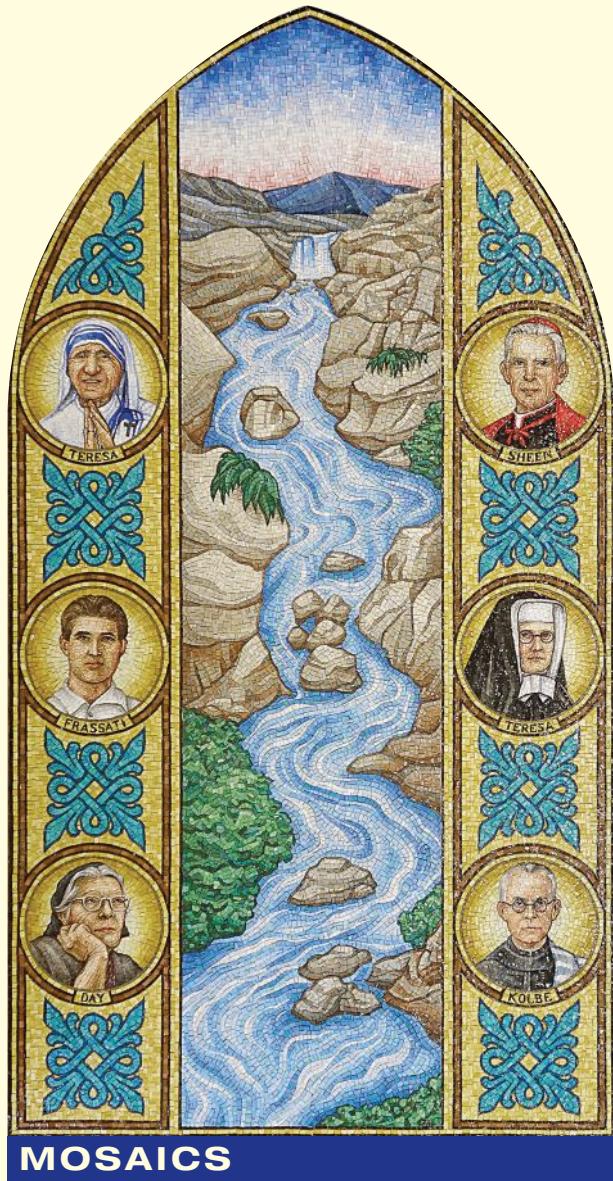
Conrad Schmitt Studios Inc.

Decorative Painting • Stained Glass • Conservation • Restoration • Interior Design • Murals • Fundraising • Historic Paint Analysis

conradschmitt.com • 800-969-3033

Pictured above: Sanctuary of St. Columban Catholic Church - Chillicothe, Missouri

Creating spaces for worship and devotion for 120 years.



LISTENING.
DESIGNING.
FABRICATING.
INSTALLING.



For 120 years Rambusch has been creating fine furnishings, decorative arts, lighting solutions and interior environments supportive of worship. Allow us to assist you. We welcome your inquiry.

RAMBUSCH
SINCE 1898

LIGHTING | CUSTOM LIGHTING | ARCHITECTURAL CRAFT

Workshops: 160 Cornelison Avenue, Jersey City, NJ 07304
201.333.2525 info@rambusch.com www.rambusch.com

LIGHTING SOLUTIONS

**INNOVATION OR REPLICATION
FOR ARCHITECTS • DESIGNERS • CONTRACTORS**



HOLY FAMILY CHAPEL - ST. LOUIS, MO

SAINT LOUIS ANTIQUE LIGHTING CO.

801 North Skinker Boulevard, St. Louis, MO 63130 Phone: (314)863-1414 FAX: (314)863-6702
Email: slalco@slalco.com

JOHN TIEDEMANN

INCORPORATED



Church Restoration Specialists

**Interior Painting & Decorating
Historic Finishes
Plaster Assessment
Plaster Stabilization/Consolidation**

www.JohnTiedemann.com

1-866-600-2666

The Cathedral of the Immaculate Conception, Syracuse, New York

CONTENTS

celebrating
30
YEARS

DECEMBER 2018



46



48



ON THE COVER

Holy Name of Jesus Cathedral
in Raleigh, North Carolina,
by O'Brien & Keane.

See more on page 32.

Photo by Alan Karchmer

BUYING GUIDES

Ecclesiastical Specialties	59
Historical Products Showcase.....	61
Art Glass	62
Windows, Doors & Hardware	63
Decorative Painting, Murals & Mosaics.....	65
Interior Lighting	66
Forged & Wrought Metalwork & Metal Castings ...	73
Steeple, Domes & Cupolas.....	74
Cast & Carved Stone	75
Specialty Brick & Mortar	76
Wood Carving.....	77
FREE INFORMATION GUIDE	56

32 Massing the Assembly

Holy Name of Jesus Cathedral by O'Brien & Keane is a prominent example of traditional Catholic church architecture.

40 The Preservation of Christ Church Lutheran

MacDonald & Mack Architects preserves Christ Church Lutheran, a National Historic Landmark and modernist icon designed by Eliel and Eero Saarinen.

46 Diving Dome

Rambusch Decorating Co., creates the Trinity Dome mosaic at the Basilica of the National Shrine of the Immaculate Conception.

48 Spanish Roots

Ferguson & Shamamian recreate the vocabulary of an original Spanish Colonial house in Santa Monica.

WELCOME PAGE

8 Industry News

INTERVIEW

10 Collaborative Collections

Interior designer Thomas Pheasant has been designing celebrated home furnishings for more than 15 years.

TECHNIQUES

14 Clean, Dry, Sound, Dull

The four steps for a successful paint project.

HISTORIC MATERIALS

16 Handle with Care

Steps to take when restoring historical stained glass.

THE TRADES

20 Custom Crafts

B&D Builders uses traditional practices in its millwork shop.

SKETCHBOOK

22 Using Moldings

Useful guiding principles for impactful moldings.

PRODUCTS IN-DEPTH

26 Cast in Stone

This faux material has a long-standing history in the built environment.

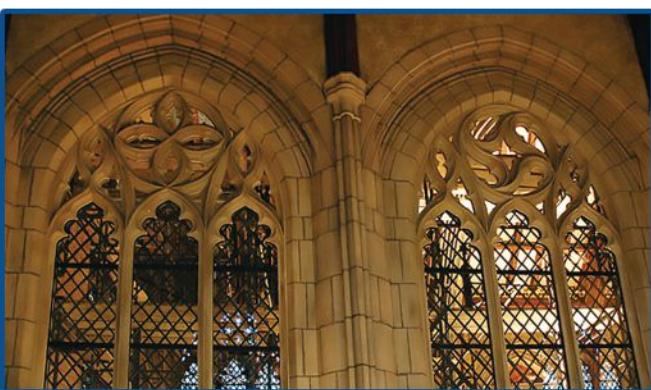
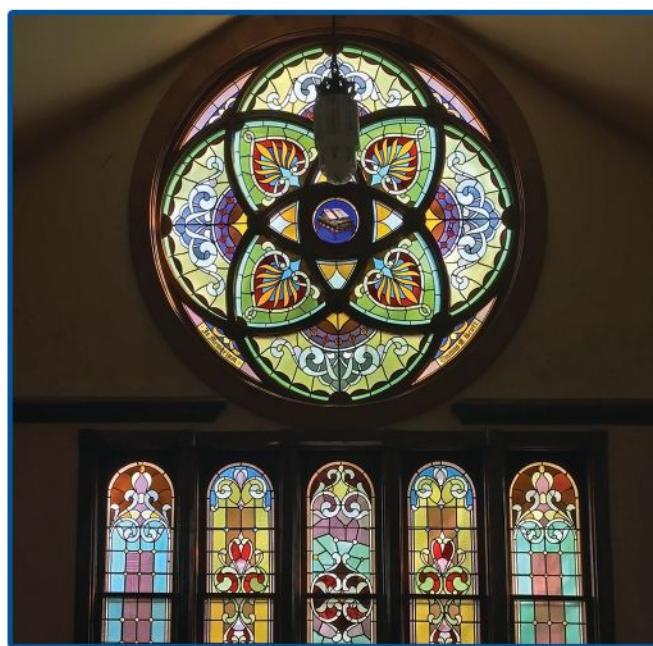
BOOKS

80 Making Dystopia

by James Stevens Curn

Durability, True Quality, & Simply Beautiful

Experience the Difference!



Since 1982, Parrett has offered a high quality product that is produced using the highest grade materials along with meticulous craftsmanship. Whether we manufacture using our standard parts and profiles, or if we build to your specification, you can count on Parrett quality and durability.



Parrett Manufacturing, Inc.

Phone: 800-541-9527

Fax: 1-877-238-2452

www.parrettwindows.com

info@parrettwindows.com



Parrett
Windows & Doors
Quality Crafted Windows & Doors



Restoration & Maintenance Products

Solutions for your toughest projects

- **Wood**
- **Concrete**
- **Metal**
- **Plaster**
- **Stone**
- **Porcelain**



Free Catalog
1-800-445-1754
www.abatron.com

TRADITIONAL BUILDING

EDITOR	Nancy Berry
MANAGING EDITOR	Emily O'Brien
CONTRIBUTING EDITORS	Gordon Bock Judy L. Hayward Nancy A. Ruhling
CREATIVE DIRECTOR	Edie Mann
ART DIRECTOR	Mark Sorenson
ADVERTISING COORDINATOR	Kim Hoff
PREPRESS SPECIALIST	Idania Mentana
ASSOCIATE PUBLISHER	Jennifer Baldwin
MANAGING DIRECTOR - CLIENT SOLUTIONS	Dean Horowitz
INFORMATION SERVICES MANAGER	Dorian Henao

FOUNDER, EDITOR EMERITUS **Clem Labine**



VICE PRESIDENT, PUBLISHER	Peter H. Miller, Hon. AIA
SALES DIRECTOR	Heather Glynn Gniadrowski
EDITORIAL DIRECTOR	Patricia Poore
LEAD GENERATION MARKETING DIRECTOR	Amanda Philips
DIRECTOR OF DIGITAL MARKETING	LJ Lindhurst
MARKETING MANAGERS	Taylor Jackson, Griffin Suber
FACILITIES MANAGER	Tony Wilhelms
TRADITIONAL BUILDING CONFERENCE SERIES	
EDUCATION DIRECTOR	Judy L. Hayward
DIRECTOR OF OPERATIONS	Carolyn Walsh



PRESIDENT & CEO	Andrew W. Clurman
SENIOR VP, CFO & TREASURER	Michael Henry
CHIEF INNOVATION OFFICER	Jonathan Dorn
VP OF AUDIENCE DEVELOPMENT	Tom Masterson
VP, PRODUCTION & MANUFACTURING	Barbara Van Sickle
VP, PEOPLE & PLACES	JoAnn Thomas
VP, DIGITAL PRODUCTS & PLATFORMS	Katie Herrell
VP, IT	Nelson Saenz
AIM BOARD CHAIR	Efrem Zimbalist III

Subscriptions & Subscriber Service: 800-548-0193
 Traditional Building, P.O. Box 3000, Denville, NJ 07834-9965

Traditional Building (ISSN # 0898-0284) is published bi-monthly by Active Interest Media, 5720 Flatiron Parkway, Boulder, CO 80301.

Subscription rate to professionals in architecture, interior design, construction and landscape design in the U.S. and possessions: \$24.95/yr. [6 issues]. Not available outside the U.S. postal system.

Contents of *Traditional Building* are fully protected by copyright and must not be reproduced in any manner whatsoever without written permission from the publisher.

Copyright 2018 by Active Interest Media,
 5720 Flatiron Parkway, Boulder, CO 80301; 800-826-3893;
 Fax: 303-440-1618 Subscription inquiries: 800-234-3797

LIST RENTAL: THE INFORMATION REFINERY 201-529-2600
 Logo Licensing, Reprints and Permissions
 Contact Brett Petillo, Wright's Media
 1-877-652-5295 aim@wrightsmedia.com





We Specialize in Architectural Accents and All Natural Stone



Aztecstoneempire

Aztecstoneempire

Aztecstoneempire

770-368-9337

5055 Buford Highway Norcross, GA 30071



2019 PALLADIO AWARDS CALL FOR ENTRIES

It's time to start preparing your Palladio entries for the 2019 competition, the 18th year for the annual awards program. **The deadline is January 11, 2019.** Produced by Active Interest Media, publisher of *Traditional Building* magazine, Period-Homes.com, and organizers of the Traditional Building Conference, this is the only national awards program that honors traditional design and construction.

Awards are given in a number of categories. Restoration & Renovation and Adaptive Reuse and/or Sympathetic Addition are honored in both the residential and commercial/institutional categories. Also in commercial is New Design & Construction, more than 30,000 sf and New Design & Construction, less than 30,000 sf. In residential, the comparable categories are New Design & Construction, more than 5,000 sf, and New Design & Construction, less than 5,000 sf.

A residential award is also given for Multi-Unit Design and for Exterior Spaces: Gardens & Landscapes. A commercial award is also given for Public Spaces, and this year, two new categories have been added: Craftsmanship & Interior Design.

SEE PAGE 58 FOR DETAILS.

New Partnership Between Design Furniture Holdings Inc. & Robert A.M. Stern Architects

Design Furniture Holdings Inc (DFH), the luxury custom furniture manufacturer of the Ferrell Mittman and Avery Boardman brands, is pleased to announce a new licensing agreement with Robert A.M. Stern Architects of New York. Robert A.M. Stern Architects' contemporary interpretations of traditional forms are the perfect complement to DFH's commitment to craftsmanship and customization. Two collections are expected to debut in 2019.

CONTRIBUTORS



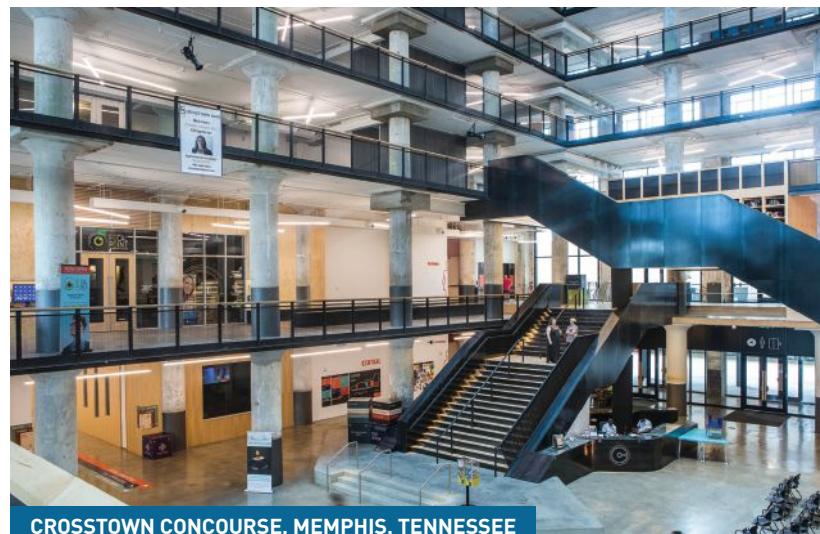
ERIK EVENES is a lifelong resident of California, born and raised in Los Angeles. He is the principal of Evens Architects, an independent design studio operating under the aegis of the KAA Design Group, focused exclusively on traditional residential design. His work has been published in a wide array of publications, including *Architectural Digest*, *House Beautiful* and *Western Interiors*. He is a teacher and a national Fellow of the Institute of Classical Architecture & Art.



JUDY L. HAYWARD is executive director of Historic Windsor, Inc. and the Preservation Education Institute. She serves as education director for the Traditional Building Conferences Series and Online Education. She blogs and writes a column regularly for *Traditional Building*. Judy joined the adjunct faculty in 2018 at Kennebec Valley Community College in Maine to teach New England Architectural Styles and Building Construction online. She specializes in the development of educational programs for builders, architects and tradespeople.

National Preservation Awards Jury Announce 2018 Winners

After reviewing more than 50 potential candidates nominated across the country, the 2018 jury for the National Trust for Historic Preservation's Richard H. Driehaus Foundation National Preservation Awards has chosen three award winners to be honored. The Awards celebrate the best of the best in historic preservation, adaptive reuse, and the re-imagining of historic buildings for the future.



CROSSTOWN CONCOURSE, MEMPHIS, TENNESSEE

Photo by Sélaïve Photography



THE DOUGLASS AT PAGE WOODSON, OKLAHOMA CITY, OKLAHOMA

Photo by Justin Clemons Photography



RICHARDSON OLMS TED CAMPUS, BUFFALO, NEW YORK

Photo by Scott Gable Photography

HGA Acquires Wilson Architects

National multi-disciplinary design firm HGA acquired Wilson Architects, a prominent architecture firm specializing in science and technology facilities for higher education and corporate clients. Boston-based Wilson Architects will now be known as Wilson HGA.

IF ONLY
THESE WALLS
COULD
TALK...



The story behind a timber frame home built by **Vintage Homes and Millwork** is one of handcrafted quality and painstaking attention to detail.

From each timber cut to precision, to the exquisite hand-finishing, to the mortise-and-tenon joinery of each post and beam, our timber frame homes become the talk of the town.



Schedule a tour of our facility

34 South Vintage Road

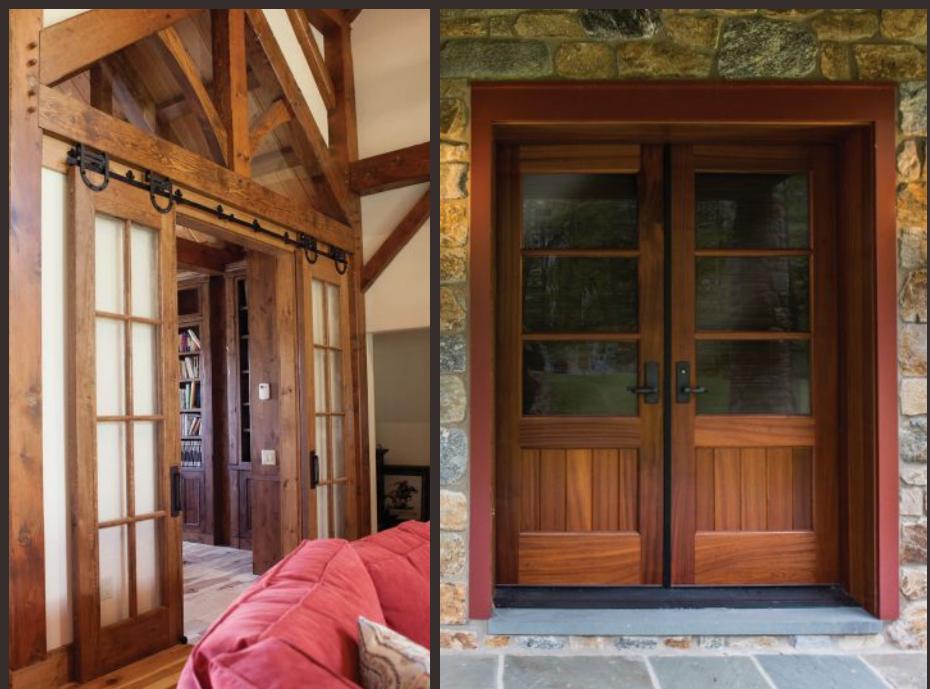
Paradise, PA 17562

717-687-0292

VintageHomesandMillwork.com

ENHANCE THE ENVY WITH CUSTOM DOORS & HARDWARE

By blending our time-honored, quality craftsmanship with state-of-the-art machinery and in-house millwork shop, our doors become works-of-art, creating a statement piece for any home.



Collaborative Collections

Interior designer Thomas Pheasant has been designing celebrated home furnishings for more than 15 years.



Thomas Pheasant, a celebrated interior designer who also creates furniture, focuses on residential and commercial projects throughout the United States, Europe, and Asia. Known for his modern vision of classical design, Pheasant has received the Andrew Martin Interior Designer of the Year Award, the John Russell Pope Award given by the Institute of Classical Architecture, and the 2016 Design Icon Award for his contributions to the design industry. He also was recognized as a Dean of American Design by *Architectural Digest*.

His furniture collections include the Thomas Pheasant Collection for Baker

Furniture, Thomas Pheasant Collection for McGuire, and his own collection of limited edition and unique pieces, Thomas Pheasant STUDIO. The author of *Simply Serene: The New Luxury for Modern Interiors* (Rizzoli), Pheasant has homes in Washington, D.C., and Paris.

1 Your collaborations with furniture companies such as Baker have resulted in classically beautiful pieces. How did the collaboration with Baker come about? In 2001 Baker approached me about creating a collection focusing on a new look for classical furniture. They had seen my interior work in *Architectural Digest* and liked that I understood the needs of residential projects combined with the fact that I designed furniture for many of my projects. We launched my first collection in 2002 and recently launched my fifth Baker collection in 2018.

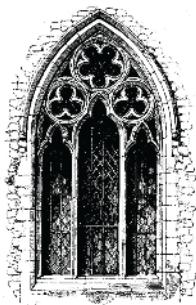
2 Do you have any tips for how to build a brand for a venture into furniture design? I believe it is important to create a clear design vocabulary if you are interested in venturing into furniture design. This is essential if you want to create furniture that reflects your personal point of view. While my inspirations are

Architect: McCrory Architects, LLC; Holy Cross Church, Ramsey, NJ; Photography: Brett Drury, Architectural Photography, Inc.

CHADSWORTH INCORPORATED

COLUMNS PERGOLAS BALUSTRADES MILLWORK SHUTTERS

www.COLUMNS.com 1-800-COLUMNS
 277 North Front Street, Historic Wilmington, NC 28401 (P): 800.486.2118 (F): 910.763.3191 sales@columns.com



OLD WORLD STONE LIMITED

Fabricators of Dimensional Cut Stone

www.oldworldstone.com

Tel: 905-332-5547



Tracery Windows for Packer Memorial Church, Lehigh University, Bethlehem, PA.

Old World Stone is a custom fabricator of dimensional cut stone for new and restoration work. For over 30 years, we have supplied property owners, masonry contractors and design professionals. Our work with limestone, sandstone and marble is unparalleled. We utilize leading edge 3-D scanning and robotic milling to complement our skills as Old World craftsmen.

Old World Craftsmanship ... New World Technology



ever changing, my process for designing interiors and furniture are exactly the same. How I evolve my design work and how I interpret the world around me is distinctively through my own filter or process.

3 Do you have any new collections debuting soon? Can you share your overall design philosophy? After launching my most recent Thomas Pheasant Collection for Baker, I began developing new pieces for my own in-house Thomas Pheasant STUDIO Collection.

My personal philosophy in design is that a well-developed vocabulary is just a foundation and that design should be a constant evolution and expression of current thoughts and ideas channeled through that foundation. I believe that as a creative person it is important to constantly seek inspiration and take yourself outside your office and keep a fresh eye on the world around you.

4 Furniture has undergone countless iterations since people began building furniture some 30,000 years ago.



My personal philosophy in design is that a well-developed vocabulary is just a foundation and that design should be a constant evolution and expression of current thoughts and ideas channeled through that foundation. — THOMAS PHEASANT



What do you think constitutes “good furniture” in today’s world? Beyond the subjective aesthetic judgment on what is “beautiful,” the quality of materials and construction can really define the idea of “good furniture.” Our culture is changing rapidly, and the idea of fast delivery and “good enough for now” have become ideas that are much too frequently accepted. I do believe that there is a growing interest in quality and value for the long term. I love the idea of getting back to curating our homes with beautiful pieces that are selected over

time and gradually help us express who we are now and where we have been.

5 Finally, a fantasy question: Elon Musk, owner of SpaceX, is talking about a crewed flight to Mars within the next decade or two, with an eye toward colonization. If you could design one piece of furniture for a habitat on Mars, what would it look like? It would be the Cleo Chaise from my new Baker Collection. A sculptural cloud, the Cleo Chaise puts you in just the right position for celestial viewing or simply dreaming.

PACIFIC
REGISTER COMPANY

Return Air filter grille, black washable filter, custom sizes

The leading manufacturer of decorative registers, grilles and vent covers.

Our uniquely crafted products are designed to give a home or commercial space the style, beauty and character you are looking for.

Low in price and high in quality
All of our products are proudly made in the USA
Sold direct to the end user. We are NOT a reseller and do not sell to resellers.

Cast aluminum registers, powder coated finish

www.pacificregisterco.com
(844) 487-7500 | info@pacificregisterco.com

Lighting | Hardware | Gates & Railings | Custom Expertise
610.518.3999 | heritage-metalworks.com

HMW
Heritage Metalworks

HERE TRUST ISN'T JUST EARNED

IT'S FORGED.

When jobs are just too big for other metalworkers to handle. Too ornate, too custom, too difficult. When you hear "maybe," "we think so", or "probably". When others can't,

WIEMANN CAN.

W
WIEMANN
METALCRAFT

639 West 41st Street, Tulsa, Oklahoma 74107 Phone (918)592-1700 Fax (918)592-2385 Email sales@wmcraft.com

Clean, Dry, Sound, Dull

The four steps
for a successful
paint project.



Regardless of your role in traditional building, probably every painter you have ever worked with or for has told you that success or failure for any painting job really comes down to good surface preparation. But just what does that really mean?

Charles Gilley, Charles Gilley Restoration Painting, in South Woodstock, Vermont, describes the conditions he needs to paint any substrate confidently: clean, dry, sound, and dull.

CLEAN

Gilley describes a clean surface as "one that has removed any barrier between the substrate and the coating." Examples include removing grease in kitchens, body oils from fingerprints and dirt that can accumulate anywhere. Interiors require hand-washing with a mild soap, water, and a good rinse. He avoids pres-

sure washing and uses a garden hose for exteriors. Power washers run the risk of saturating the wood with moisture and that brings us to the next condition to be achieved, dryness.

DRY

A dry wooden substrate should have less than 15 percent moisture content. Gilley prefers not to exceed 12 percent. Duffy Hoffman, of Hoffman Painting and Restoration in Forest Park, Illinois, says that he finds a range of 10 to 15 percent works well with most coatings. Both feel that a moisture meter is an essential tool and the best insurance to confirm whether wood is dry enough to accept paint.

Mario Guertin, of Painting in Partnership, Inc, Palatine, Illinois, notes that a clean and dry surface is just as important for metal substrates. His

Chicago-area firm paints many multi-story townhouses with metal cornices and bay and oriel windows from the period of 1880-1920. He worked "on the historical restoration of the façade of one of the three adjacent brownstone houses Potter Palmer had built for his three daughters in the late nineteenth century on Chicago's Gold Coast area. The project involved the complete rebuilding of the metal two-story bay window, cornice and slate roof elements. All the metal surfaces were faithfully recreated using galvanized steel, that needed high-gloss black paint. The manufacturing process for galvanized steel leaves the surface of the steel coated with a thin oily film. It is essential to remove that oily substance before any primer or coating can be applied. To do the job properly, we used lacquer thinner, scrub pads and rags to clean the metal surfaces. Using a scrub

pad really helps to loosen the oily film and rags finish up the job." Guertin's blog is full of excellent tips for preservation professionals.

SOUND

Soundness usually applies to recoating a surface that has been in service for a while. "There should be nothing loose; in other words, no peeling, lifting or bubbles," say Gilley. There are many methods of paint removal, and it is best to work with a professional painter for guidance on the best method for the job. Hoffman prefers infrared heaters and a new tool, the Speedheater Cobra available from Eco-Strip, which enables him to do work in small areas or on delicate window details. Gilley really likes the Festool line of tools for paint removal because he needs good, reliable dust collection during paint removal.



Depending on the project, lead-safe work practices may be required. Visit epa.gov for information about Federal laws and State health departments for statutes that may apply in state and local jurisdictions. Anyone working on buildings constructed prior to 1978, should take a Lead RRP course to learn about lead hazards and working safely.

DULL

The surface should be dull or smooth, but it needs what painters call "tooth" according to both Hoffmann and Gilley. This involves putting some profile in the substrate so that the coating bonds or adheres to it.

OTHER KEYS TO SUCCESS

Gilley cautions that one can't assume that every coating works in every situation. "Never assume that it

does." You may be working with oil or water-based paints, an acrylic finish, or something with urethane in it. And that brings us to the next bit of critical advice: Read product information materials whether found on the can, technical data from a manufacturer, or in a materials safety data sheet. This might be the fifth step and the second-best bit of insurance beyond the moisture meter to insure a good paint job. Get to know the technical people who work with the manufacturers of the products you use. Ask questions and give them feedback. This is an important step whether you are a painter, contractor, architect, interior designer, facilities manager, or owner. Good technical people want to help you and they benefit from your on-the-jobsite experience. Hoffman stresses that the primer and finish coating should be made by

the same manufacturer.

A sixth ingredient in painting success clearly revolves around good communication. Charlie says that the golden rule, "do unto others as you would have done to you" applies on the painting job site just as it does in all areas of life. Since painters are usually the last craft on the job, they are often tasked with cleaning messes and fixing problems left behind by others. He encourages other trades on the job to think about the next trade coming to the project.

Duffy stresses the need for good specifications. He encourages architects and interior designers to work with trusted painters to develop good specifications. He believes the communication process that leads to good specs results in better work.

Mario says to consider the neighborhood, the neighbors, and responsi-

bilities to paint and work safely. "Old buildings in a big city like Chicago are often situated right next or close to the sidewalk and very close to the neighbors. Consequently, gaining access to the surfaces to be worked on can also require the renting of special equipment like a canopy, scaffolding, boom, and the procurement of all the required permits. On a recent paint restoration project, the rental and permit costs alone exceeded \$10,000." He usually works on projects that must comply with RRP standards for lead removal.

Mario Guertin sums it up well, "If you are the owner of such a building, how long would you like the paint job to last? I would say as long as possible! This means that, as a house painting contractor, I must ensure that our surface preparation is as thorough as possible."

Words of advice for the younger generation thinking about a career in the painting trade

All three of the painters interviewed for this article are committed to their own continuing education and helping others to learn. Charlie Gilley teaches for the PDCA and the Preservation Education Institute, Historic Windsor, Inc., in Vermont. He encourages young people to seek out trade and vocational education at schools and colleges throughout the US. Mario Guertin encourages those new to the craft to join PDCA and to "surround themselves with talented and experienced professionals" who are willing to teach. Duffy Hoffman lectures and demonstrates at the Traditional Building Conference and in partnership with many preservation groups throughout the United States as well.

Painting & Decorating Contractors Assoc.

Both Charlie Gilley and Mario Guertin are members of the Painting and Decorating Contractors Association, pdca.org. Each of them has been active in the development of craftsmanship technical training for the nonprofit trade association. The 120-year-old association has over 2,000 professional members and offers podcasts, discussion groups, national and regional training, and peer-to-peer advice. Gilley and Guertin both mention that they give as much as they receive by having a network of peers from whom they can learn and share. Mario mentioned that he shared some concerns he had about a particular technique for some doors on which he was working, and that a fellow PDCA member not only coached him but made a video of the process and sent it to him.

Contact Information

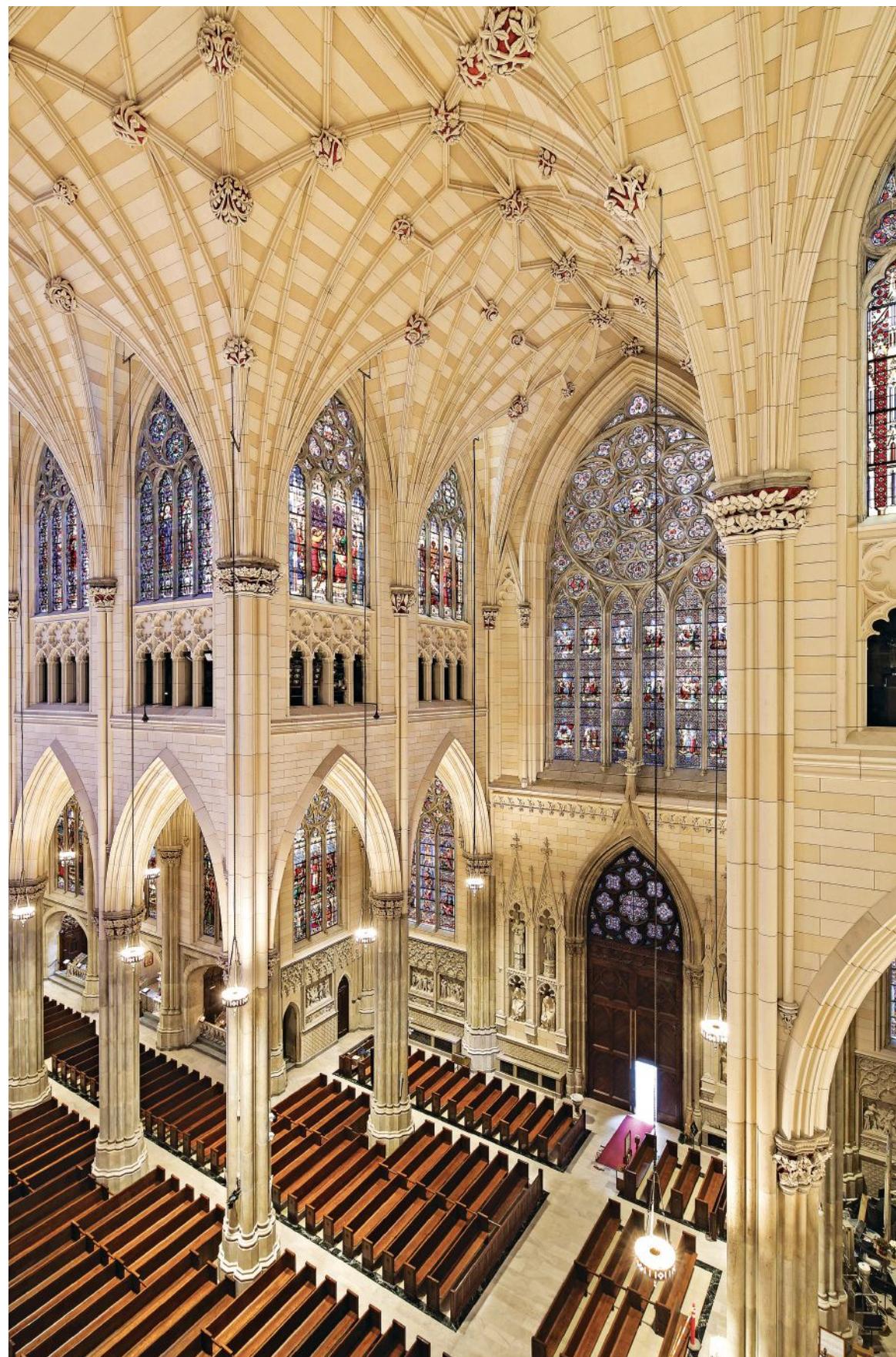
Charlie Gilley cbgpainting@gmail.com

Mario Guertin paintpartner.com

Duffy Hoffman sashmasterduffy.com

Handle with Care

Steps to take when restoring historical stained glass.



Stained glass is typically an assemblage of colored glass pieces that form a pattern held together by lead strips called cames. Cames are reinforced by steel to support the weight of the glass. The term leaded glass indicates noncolored glass, which is similarly assembled. Stained glass has many roles in architecture: It is a decoration, it provides light to the room, and it keeps out rain and wind. As a result, its design is part science and part art, as is its conservation and restoration. While a layperson can perform minor maintenance to extend the life of stained glass, repairs should be undertaken by a professional.

History. Egyptians likely were the first to produce colored glass, in the form of beads dating to 2,700 BC. Stained glass windows were found in Roman houses dating to the first century AD. The earliest documented pictorial stained glass is a head of Christ in the German Lorsch Abbey from 10th century AD. Stained glass was at its zenith in gothic architecture, but between the Renaissance and the mid-19th century, the change in religious sentiment associated with the Protestant revolution resulted in stained glass windows falling out of fashion.

In North America, glass was fabricated in Jamestown by 1607. Eventually stained-glass studios set up shop for both custom and stock designs. Churches frequently installed temporary glazing (plain or stenciled glass, but leaded) which served to complete the building enclosure until the parish had funds to install more intricate windows. While new stained-glass windows today may be of traditional or nontraditional design, they are fabricated in the same manner as historical windows.

Five types of stained glass are typically found in North America:

- **Traditional stained glass**, which involves applying vitreous paint, stain, or enamel and firing it onto glass to depict scenes. (*See Figure 1*)
- **Stenciled glass**, in which colored materials are applied repetitively with stencils across many panes. The glass is typically very thin and frequently with inconsistent firing, resulting in difficulties repairing it. (*See Figure 2*)
- **Cathedral glass**, which is colored antique glass that is machine rolled and sometimes has a pattern pressed into it. (*See Figure 3*)
- **Opalescent glass**, which includes milky-white glass mixed into it for translucency and is sometimes iridescent. (*See Figure 4*)
- **Plated glass**—a North American stained glass—which sandwiches different glass together (opal-



FIGURE 1

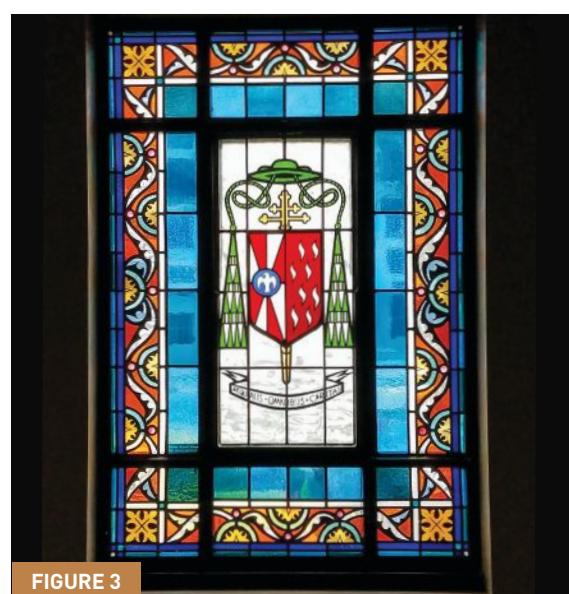


FIGURE 3



FIGURE 5



FIGURE 2

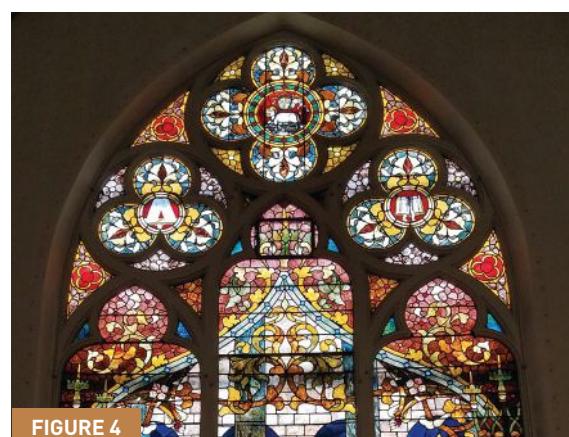


FIGURE 4

CRAFTSMANSHIP
ARTISTRY
DESIGN

CANNING
LITURGICAL ARTS

Since 1976
celebrating 40 years of

PERFECTING PRESERVATION™
CANNINGLITURGICALARTS.COM | 203-272-9868

escent, cathedral, and textured) in areas to achieve certain effects. John La Farge and Louis Comfort Tiffany both patented methods of plated glass achieved by sandwiching. (See Figure 5)

Installation. Stained glass is set in pieces into lead cames, which edge each piece. These are in turn soldered together, to form a reinforcing web that holds the glass in the designed pattern. Cement is applied to the cames to keep the joint watertight. The cames are



FIGURE 6

attached to reinforcing rods with tie wires, which assist in keeping the lead stiff and support the weight of the glass. This assembly sits in a window frame of wood, steel, terracotta, or stone, and protects the interior from weather, lets in light, and, when operating portions are utilized, permits the passage of fresh air. (See Figure 6)

Assessment. Knowing the date of your window will help with its treatment and assessing its valuation. For tips and techniques of dating a window, see *Preservation brief 33: The Preservation and Repair of Historic Stained and Leaded Glass*.

Examine the window for the types of deterioration listed below. Annotate the deterioration on dimensioned drawings. Indicate the intended scope of repair along with quantities to ensure consistent bidding. If the scope includes removing the window for wholesale re-leading, require that tracings/rubbings be prepared prior to removal.

The types of conditions or deterioration that should be observed and noted are:

- **Sagging or bulging panels.** This is usually caused by the weight of the glass lacking adequate support or being exposed to high heat. When examining this condition, observe if there are damaged, cracked or broken areas of glass, which will require repair as described below.
- **Broken or loose wire ties** can be caused by aging or by the above-mentioned bulging. This may require the introduction of additional wires or perhaps additional reinforcing rods.
- **Examine the cames.** If they have become stretched, the glass may be coming out of the cames, or there may be gaps at the panel edges showing daylight. Other symptoms may be a white powdery look (oxi-



dation) on the lead cames or lead “fatigue,” evident as tears or cracks (particularly near the solder joints).

- **Rattling panels, or water or air infiltration,** indicate a failure of the waterproofing, which also can have symptoms of stained or wet sills.
- **Check for loose or missing perimeter putty** that holds the glass in the sash.
- **Look for loose or flaking painted areas** of the glass (not to be mistaken for dirt). These unstable areas require restoration by a professional.

Repair. As with all historic preservation, first do no harm. Maintenance can be done by a layperson, but an experienced craftsperson is recommended for any of the listed repairs.

Maintenance. Have perimeter sealant of the window frame replaced every 10 to 15 years. This vital seal protects the joint from water exposure. Maintaining the paint film is also important to ensure that water doesn’t affect the substrate, preventing deterioration.

Maintain cement around the cames to ensure that water is kept out of the window’s crevices. If water sits anywhere, it will freeze and expand, causing more damage to the window.

Maintain hardware with lubricant and cleaning for proper operation and to prevent racking of the window frame.

Regular cleaning of the window should be done with appropriate cleaning solutions. Do not use any products containing ammonia, acid (including vinegar), solvents, or anything caustic or abrasive (like bathroom cleansers). Likewise, steam or pressurized air are too aggressive for stained glass and will result in damage to the glass or cames.

When to seek a professional repair person.

When windows sag, a professional can determine where to install additional reinforcing bars or additional ties to support a window, without detracting from the original design. It is not possible to “flatten” large bulges since it puts the glass at risk of breakage. Not only has the lead stretched to cause the bulge or sag, but the assemblage has increased in size and likely won’t fit back into the frame. At this point, full re-leading is required. The window is traced and the lead cames measured to create a permanent record. The window is removed from the opening and taken to a shop where the individual pieces are removed from the cames and reassembled with new matching lead and reinforcing rods.

To repair cracked glass, epoxy glue can be applied to the edge of the glass. If a more flexible repair is needed to accommodate ongoing movement, a technique in which copper foil is folded over the edge of the glass and soldered can be used. In the case of badly damaged or missing glass, replacement glass can be sourced. When matching colored textured glass is not available, it is possible to use two layers of glass, one for texture and one for color, rather than installing a poorly matched piece that would be visible.

Where there is isolated separation of the cames, selective resoldering of separated joints is possible. If the glass is loose in the came, new cement can be worked into the joints to provide a weathertight joint. Sealant should not be used for this application.

In some cases, stained glass paint may be unstable or flaking. Stabilization of the paint should be restricted to professionals. There are many possible techniques included in the final link below.

What not to do. A common practice to protect stained glass from vandalism or weathering is to cover it with a plastic or glass storm window. This needs to be carefully considered. Done improperly, this can lead to premature failure of the lead cames due to overheating or rotting of the frames from condensation. Any cover design must be properly vented at the head and have drainage at the sill. Use calculations to determine if condensation could occur on the glass. The design must also reflect the mullion and muntin layout of the original window, or it will mar the appearance of the window.

Stained glass is a valuable and complicated asset. For the best long-term results, repairs should be made only after threats to the window (such as a leaky roof or crumbling masonry) are repaired.

Resources:

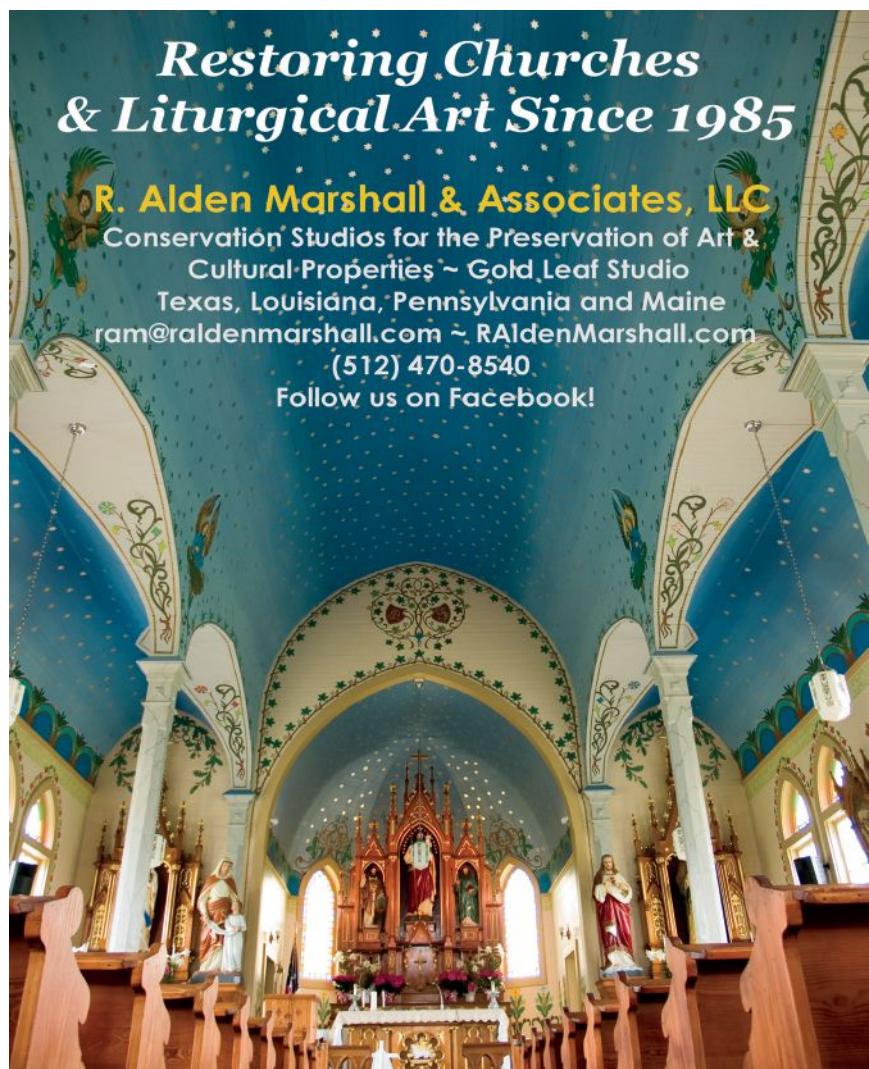
Standards and Guidelines for the Preservation of Stained (and Leaded) Glass Windows, C. 2012 Stained Glass Association of America

nps.gov/tps/how-to-preserve/briefs/33-stained-leaded-glass.htm
stainedglass.org

churchwindowrestoration.com/why

With thanks to Emily Carson of Solstice Stained Glass for her technical input.

SUSAN TURNER is a Canadian architect specializing in historic preservation of national registered buildings. She is the Director of Architecture for The Tradesmen Group, a restoration contractor specializing in the repair and preservation of historic buildings. She can be reached at sturner@tradesmengroup.com



www.phelpscompany.com



ARCHITECTURAL METAL FABRICATION FOR COMMERCIAL AND RESIDENTIAL PROJECTS

Integrating decorative metalwork into your next design? Mid-Atlantic Steel Fabrication can conceptualize and produce unique designs for both indoor and outdoor use, all with superior craftsmanship and customer service. Contact us today to create the perfect piece for your next project.

- Stairs
- Property Gates
- Fencing
- Railings
- Sculptures

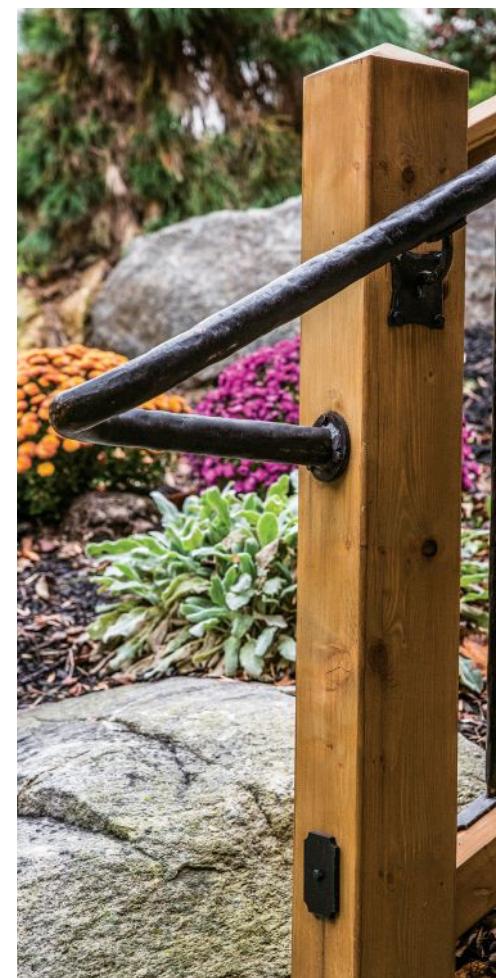


MID-ATLANTIC
STEEL FABRICATION

(717) 687-7313
www.masteelfab.com

Custom Crafts

B&D Builders uses traditional practices in its millwork shop.



B&D Builders was born out of a longstanding friendship between Ben Esh and Daniel Glick. The two met as teenagers working for the same small construction shop, where they hammered together backyard storage sheds and pole barns. Their career paths took a turn toward timber frame construction when their work caught the eye of John and Leslie Malone, the largest individual landowners in the United States and a couple with a passion for horses and equestrian facilities. Their first official project was Riveredge, a world-class equestrian facility in Chesapeake City, Maryland.

Today, B&D Builders—along with sister companies Mid-Atlantic Timber Frames, Vintage Homes and Millwork, and Mid-Atlantic Steel Fabrication—is a leading design-build company. Mid-At-

lantic Timber Frames focuses on sourcing quality timbers for residential and commercial properties, while Vintage Homes & Millwork constructs custom homes and custom-crafted wood doors. Mid-Atlantic Steel Fabrication is a full-service metal fabricator providing laser cutting, CNC forming, welding, powder coating, countersinking, and more.

The family of specialized companies offers a team of skilled custom builders, designers, millworkers, project managers, timber suppliers, and fabricators expert in the use of quality materials and time-tested construction practices such as mortise and tenon. All four companies are managed out of their parent facility in Paradise, Pennsylvania.

“Our growth has been deliberate,” says Ben Esh. “We added the companies we need to do our job well, which also

allows us to keep strict control of the materials, construction process, and finishing details.” B&D has come a long way since its first job in 2008. Today the company stamp is on residential homes, restaurants, and office spaces built in the same mortise-and-tenon timber frame style.

Ben and Daniel attribute their successful evolution to a simple craftsman’s creed: Build it right, or don’t build it. Early on, B&D Builders established a reputation for finishing projects on time and on budget. It wasn’t long before a bedrock of traditional bank barns became orders for horse barns, sprawling equine facilities, and full-scale riding arenas, as well as high-end timber frame homes.

Their old-world craftsmanship proved valuable for preservation and

restoration projects as well, from Greenwich, Connecticut, to Middleburg, Virginia. They hammered new life into early 19th-century barns by repointing stone walls, replacing roofs, and styling historic doors, often recycling reclaimed wood and comely old barn beams into other projects. One notable project is the recently completed reconstruction of the historic Star Barn Village, now located at Stone Gables Estates in Elizabethtown, Pennsylvania.

Even as their business grows, Esh and Glick remain stalwarts for quality work made to last, blending handmade millwork with modern technology. Inside their Lancaster County facility, which serves as a showroom, is the latest CNC technology and software to create computerized 3D renderings, providing layer-by-layer blueprints.

FAR LEFT Barn doors are a B&D specialty. Crafted from reclaimed white oak, these Track and Trolley doors can be opened to unite the barn and patio, creating a large indoor-outdoor area for entertaining.

MIDDLE Hand-crafted details give a personal touch to everything from hardwood to hand rails.

BELOW B&D's artisans use traditional building methods such as joining heavy timber frames with a mortise and tenon method, supported by wooden pegs and brackets, for old-world charm and durability.



B&D's Ideal Building Formula

- ▶ Posts and beams are carefully fashioned to fit seamlessly together
- ▶ Trusses assembled in shop
- ▶ Timbers are connected at the site using the mortise and tenon method
- ▶ Timber is custom-cut for individual job with CNC machine
- ▶ Natural energy efficiency of timber improved upon with SIPs (structurally insulated panels) installation
- ▶ Complete customization, turnkey service
- ▶ For reclaimed wood, Nylon Brush Machine cleans and removes raised fibers to create a rugged look with a clean feel
- ▶ Doors are designed with kiln dried, quarter-sawn wood and use engineered side stiles for durability and strength
- ▶ Use traditional building methods known for reinforcing and utilizing the strength of timber frame beams



Far Right: mkPhotography photo; All others: Courtesy of B&D Builders

Ben and Daniel credit their workers, craftsmanship, and top-of-the-line equipment for B&D's fine-honed reputation and exemplary craftsmanship. "I love seeing the results when

we combine centuries-old techniques from third-generation craftsmen with sophisticated technology," Ben Esh says. "It's an ideal formula for going forward into the future."

ABOVE Much of B&D's work services the equestrian community. This riding arena in Chesapeake City, Maryland, houses 28 hand-crafted horse stalls and features bold arching timber frames as well as large cupolas designed to fit a riding arena roof.

Using Moldings

Useful guiding principles for impactful moldings.



FIGURE 1

An architect sits at her desk, pen and sketch paper close at hand. Her task is to design the crowning moldings for large furniture piece, which will occupy a prominent location in the library of a new home she is designing. On the desk in front of her is also a book, open to a page displaying a chart, describing a varied array of different molding profiles. “Which shapes should I use?” she wonders. “In what order should they be positioned? How large should they be? How should they relate to each other?”

Many of us have experienced this. The confrontation with a blank sheet of paper can certainly be daunting but having in mind a philosophy of moldings can help us break through the creative block to create beautiful designs. In my last article, “The Purpose of Moldings,” we became familiar with some of the most important molding profiles. We also saw how moldings can be used as indicators of structural logic, and how that lens can help us see which shapes are most appropriate for particular locations. In this piece, I’d like to share a few useful guiding principles that can assist the thoughtful designer in using moldings to great effect.

BE CONSCIOUS OF PRECEDENT

Moldings are much more than decorative trim that is used to conceal intersections between surfaces. In the words of Donald Rattner, they are the “atomic units,” the elemental building blocks of the elements of classical architecture. So, the first stop in our quest for molding inspiration should be the classical orders themselves. When designing with moldings, it’s good to refer to the great treatises on the orders: Vitruvius, Palladio, Chambers, Gibbs are but a few examples. Also, books that synthesize the canonical information in a useful, easily referenced way, such as William Ware’s *American Vignola*, or Robert Adam’s *Classical Architecture*, are particularly valuable. As our architect friend begins to consider what kind of moldings should crown her cabinet piece, the orders themselves can help guide her.

SEEK CONTRAST

Moldings are almost never used individually; they are usually combined together in a series. When deciding which moldings to comprise a series, try to establish contrast between them. This contrast can be between straight and curved moldings, such as this example of a Doric entablature for a Colonial door surround, featuring alternating straight and curved molding elements (**Figure 1**). Contrast may also be established between concave and convex shapes. The Attic base



FIGURE 2

of the Ionic column is a well-known example, where two exuberant, convex tori are separated by a deeply concave scotia, in this example by Palladio (**Figure 2**).

ESTABLISH A HIERARCHY

The strategy of creating visual contrast between moldings leads us to another important method for creating lively assemblages of moldings: Strive to create a hierarchy. Always establish certain moldings as dominant, allowing other moldings to be subservient to them. If all the moldings are the same size, they compete for our interest, and create a crowded or agitated visual effect.

It's a much better strategy to look to one molding to be larger, more assertive, to dominate the composition, and to use the smaller surrounding moldings to provide contrast, and to define the boundaries of the larger shape. In this example of an interior crowning molding (**Figure 3**), the larger Cyma Recta is dominant. It is punctuated by small fillets, which delineate its boundaries. The ovolo bed molding underneath supports the larger molding above and is subservient to it.

COORDINATE MOLDINGS RIGOROUSLY

The elements of classical architecture relate to each other in a rigorous manner, usually by establishing definable, repeatable geometric alignments. Moldings,

CROWN MOLDING

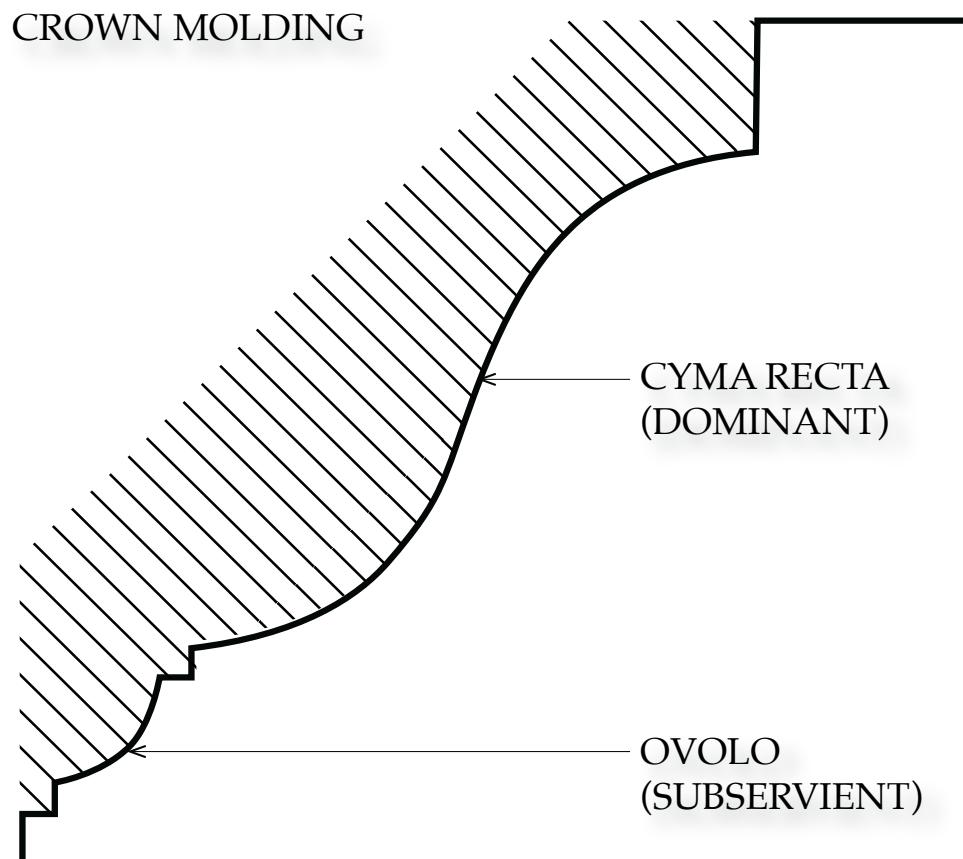


FIGURE 3

BASE MOLDINGS DORIC COLUMN

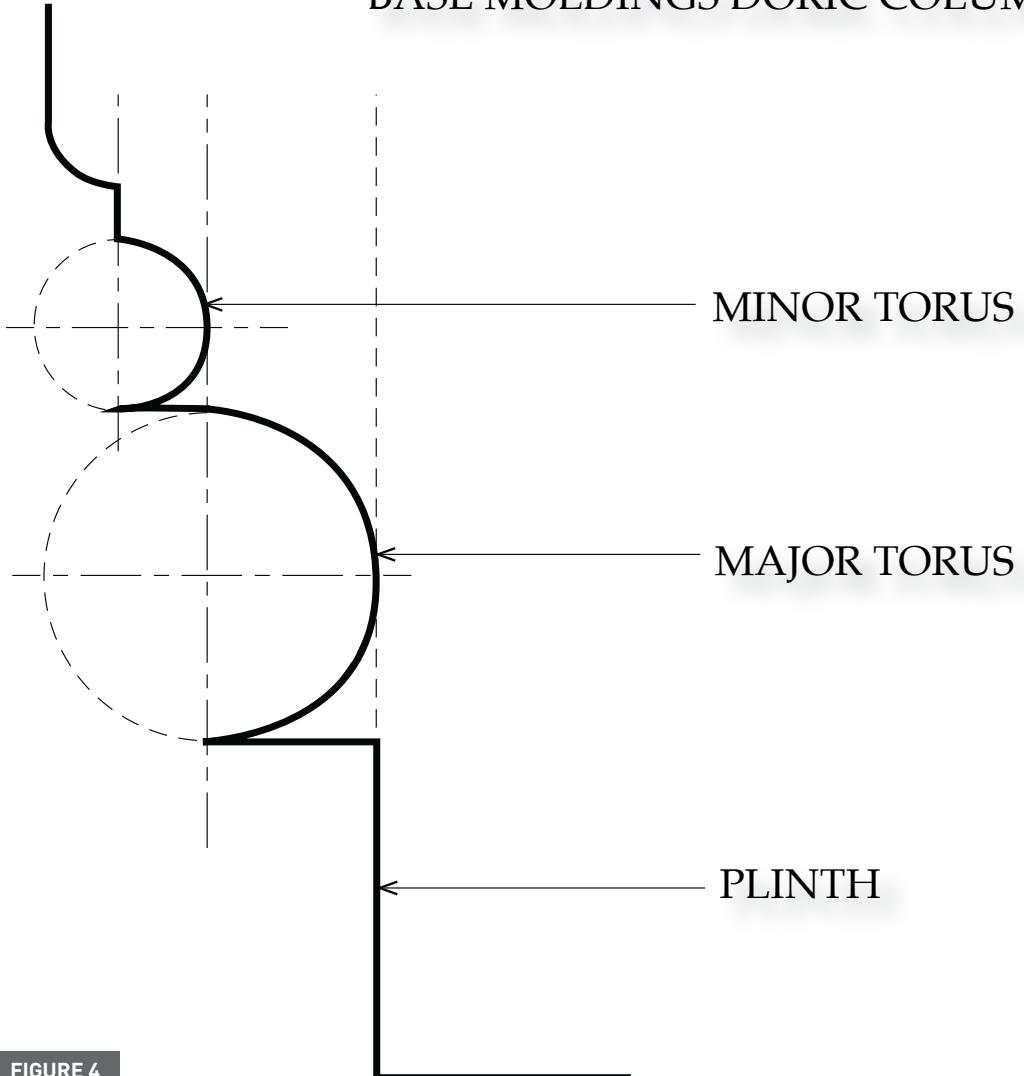


FIGURE 4

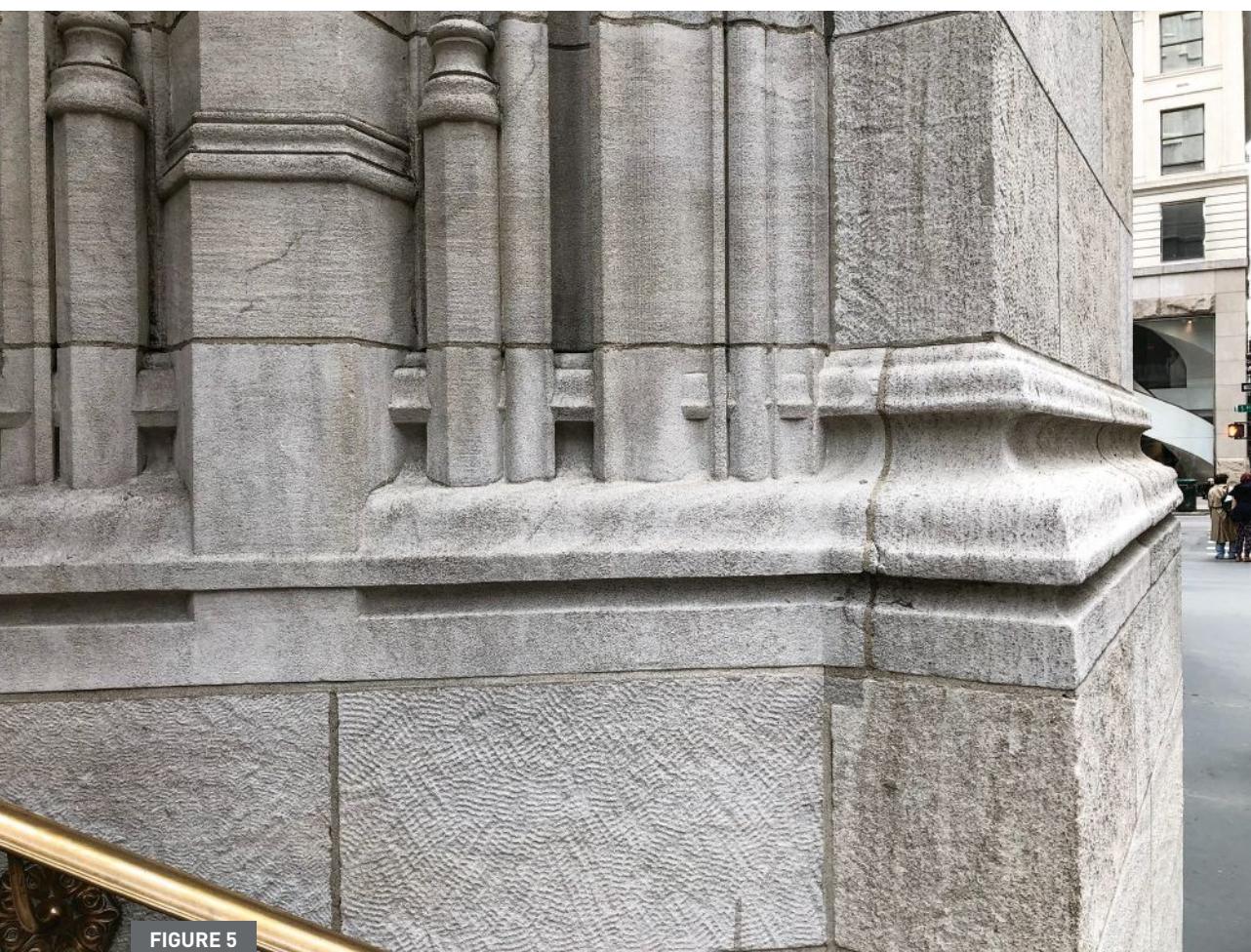


FIGURE 5

the smallest components of the architecture, should do the same. When designing assemblages of moldings, position them so they relate to each other in a rational manner. This kind of geometric clarity imparts a crispness and legibility, which is readily discernible by the observer.

For a straightforward example, consider the base moldings of the Doric column (*Figure 4*). The major torus is set over the plinth, so that the curve of the torus is tangent to the extension of the vertical face of the plinth. Above the major torus is a smaller minor torus, which is itself tangent to a line extended upward from the geometric center of the major torus. And so on.

Another important way that moldings coordinate with each other is by observing a facial angle. The facial angle is the angle at which molding groups extend from the prevailing surface, usually at the crowning condition. The canonical orders all use variations of a 45° geometry, and this is generally a good place to start. But shallower and steeper facial angles are common. For example, for a cornice on a building in especially sunny or rainy locales, where enhanced protection for windows below is desirable, a shallower facial angle might be warranted. Conversely, for interior wall treatment, where the effect is to be less monumental and more restrained, a steeper facial angle might be desirable.

MOLDINGS AS ARCHETYPES

When we learn the elements of classical architecture, we are often taught to understand them as components that are precisely defined by rigorous specifications and precise proportions. But to be truly creative in the use of the classical language, we should feel free to vary from the canon when appropriate. Indeed, the work of master architects, from antiquity to the present day, shows us that almost no finished work is exactly like one of the canonical standards (*Figure 5*). Nor should we want them to be.

Moldings, like all of the elements of classical architecture, are best thought of as archetypes. An archetype is an original, idealized model, from which all things of the same type are considered representations, based on shared characteristics. A good example can be drawn from taxonomy. Dogs share a common list of characteristics—a similar body plan, with four legs, an elongated torso, head at one end, tail at the other, similar skeletal structure, etc. Yet we see a wide array of different breeds, from Chihuahuas to Great Danes. But they are all derivative of the archetypal model; they are all “dogs.”

The same is true with the elements of classical architecture, and more specifically, with the classical moldings. Although we learn the moldings by learning a series of archetypal shapes, in the field those shapes are manifested in a nearly endless variety of possibilities. Curvature can be circular, elliptical or compound. Moldings can be understated or oversized. They can be smooth and plain, or they can be exuberantly embellished. They can be used in different combinations to achieve varying effects.

In the natural world, form blossoms from a few basic biological types into the vast complexity we see around us. In a similar way, the moldings spring from their simple geometric archetypes to become the building blocks of a complex and marvelously nuanced language of classical architecture.

DRIWOOD



Make your period home distinctive with ornamental wood mouldings from the premier source.

At Driwood we craft architecturally correct, hardwood mouldings perfectly designed for homes from any historic period. With more than 500 mouldings in stock, we have the moulding you need for your home.



2130 3" x 3/4"
Colonial era moulding with palmette pattern appropriate for use as a chair rail or a casing moulding.



3010 5" x 3 3/16"
Crown moulding with acanthus leaf & floral pattern on shallow cove accented with bead reel, egg & dart detail, and banderol design.



2133 3 7/8" x 3/4"
Colonial era moulding piece with a floral design and vertical bead and barrel pattern.



2195 2 3/4" x 2 3/16"
Colonial era moulding with palmette pattern appropriate for use as a chair rail or a casing moulding.



2139 3 3/16" x 2 15/16"
Colonial era crown moulding with an acanthus leaf pattern and rope detail.



2160 2 15/16" x 7/8"
Casing moulding with a rope detail and triple bead and barrel pattern with simple plain faced and milled details.



2148 3 1/2" x 15/16"
Colonial era casing moulding with a pineapple patterned egg and dart detailed bolection.



3067 2 15/16" x 3/4"
Chair rail moulding with an inverted acanthus leaf pattern and a rope detail.

View & Shop online at driwood.com today.
888-245-9663 (toll free) | sales@driwood.com

Visit... [www.VINTAGEDOORS.COM](http://www.vintagedoors.com)
...For even more inspiration!

Vintage Doors
By
YesterYear's®

DISTINCTIVE SOLID WOOD DOORS FOR YOUR HOME
Handmade by our craftsmen in any size, design and wood!
Screen & Storm Doors - Entrance Units - Interior Doors
Dutch - French - Louver - Three Season Porches & More...

FOR CATALOG OR QUOTE, CALL: 1 (800) 787-2001

Commercial **Traditional** **Energy Efficient** **Custom** **Invisible**

Allied Window, Inc
MANUFACTURER OF CUSTOM

"Invisible" Storm Windows®

Interior & Exterior Windows • Custom Colors • Custom Screens & Special Shapes • Historic, Residential & Commercial Buildings
Energy Savings—Approximately 50% Sound Reduction—Up to 50%

1111 Canal Road, Cincinnati, Ohio 45241 • www.alliedwindow.com • 800.445.5411 • fax: 513.559.1883



BY GORDON H. BOCK

Cast in Stone

This faux material has a long-standing history in the built environment.



Cast stone, the legendary look-alike for natural cut stone, has never been surpassed for simulating shaped masonry building elements and landscape features of all kinds. “In one form or another, cast stone has been around for hundreds of years,” explains David West, president of Haddonstone USA in Pueblo, Colorado, “but typically the material is granular limestone, 1 millimeter to 2 millimeter in size, white Portland cement, and silica sand. Small amounts of water are added so that you get a mix about the consistency of beach sand when you make a sand castle.” At Haddonstone, the mix is hand-compacted into a mold during the day, left in the mold overnight, then de-molded before proceeding to a curing process. “Curing uses a fine vapor mist that encourages the hardening of the cement, giving it a conventional, seven-day strength overnight.”

When so combined, the ingredients adopt the appearance of natural limestone, with a surface texture very similar to quarried stone, yet advantages in time and efficiency. “If somebody is tooling a quarried stone, and they need 50 pieces, they’ve got to cut, sculpt, or carve, them out individually,” says West. “Whereas if we were to produce one mold, we can cast 50 pieces in a significantly shorter space of time; it’s more cost-effective.”

Depending upon the type of limestone used, cast stone can range in color from gray to a beige hue, but products can also be custom-colored by adding dyes to the mix. “This comes into play a lot in renovation and restoration projects, certainly in churches, for instance,” says West, “because color-matching would be able to achieve new units comparable to existing materials on the site.” First, the contractor would send the manufacturer an actual sample piece of the existing stone. “Next, we would make up five or six small mixes, adding various degrees of dye to each mix in order to obtain a suitable color match. We’d keep a record of the recipe, and the amount of dye that’s in each particular mix. Then we’d send our five or six mixes back out to the site for the contractor or architect to choose which looks best.”



LEFT This neo-classical residence incorporates a portico, stonework pediment, and garden ornaments by Haddonstone.

West's company typically relies on two types of molds. "One type is timber (wood) that we use with more simplistic profiles such as plinth courses, pier caps, and so on that have a lot of relatively flat surfaces. The other type is a rubber-and-fiberglass shell mold, which we employ to achieve a high level of detail." The rubber is the actual mold, and flexible enough that it can be pulled away from the detail without breaking any of it off.

Cast stone has long been the actual source of "turned" elements such as balustrades and columns, but it also appears in the ornamental trimwork like belt courses, spandrels, and bandings that accent brick or stone construction in traditional architecture. "We do numerous types of windows and door surrounds," says West, "everything from residential projects, which may be relatively simple, 4-inch by 4-inch sections around the window, to larger sections, such as 10-inch by 10-inch for bigger buildings." He says if the exterior is masonry, such as brick or stone, typically these are solid sections, "but we also have

ABOVE Courtyard Creations constructed this unique home in Pueblo, Colorado, featuring architectural stonework and landscape elements by Haddonstone.

thin-wall material, about 1-inch to 1½-inch thick, that can be screwed to a wood-frame structure, and works for retrofits as well as new construction." They have everything for entranceways too—ashlar blocks, quoins, arches—for commercial structures to religious buildings.

Says West, "In our process, any sort of crisp edges or details—for instance, the chamfers on quoins—are built into the mold, so basically, the surface texture remains completely uniform." Cutting cast stone can reveal a varied appearance as well as leave saw marks. "You can certainly cut cast stone. For instance, when you install a plinth course, we would probably supply units in nominal lengths of 36-inches or so and then contractors would cut those lengths to suit on site. But what they're cutting is the end section, just the joints, so it is not visible on the surface."

For cornices, West says there are two or three ways to approach an installation. "You could have a solid unit with a cornice that would need to be mechanically fixed back to the structure." Typically that would be

"Cracked Ice"
Lever & Escutcheon

Traditional to Contemporary
Off the Shelf or Custom

MORRIS
Von Morris an Eric Morris & Co. brand
7249-A Browning Road, Pennsauken, NJ 08109
ericmorrisandco.com
856 997 0222 • fax: 856 294 5116

Annual Guide Book

The ultimate resource guide for
the architect, contractor,
tradesperson, interior designer,
and landscape architect

***Look for yours in your mailbox
January 2019***



Cast stone, the legendary lookalike for natural cut stone, adopts the appearance of natural limestone, with a surface texture very similar to quarried stone, yet advantages in time and efficiency.



 **indow**

Modern comfort, original charm.

Contemplate the divine, not the cold drafts and the noise outside. The latest in window technology will help the nation's oldest, most timeless windows perform like new. Indow window interior inserts block drafts using a patented silicone compression tubing that helps preserve irreplaceable handmade window frames.

indowwindows.com

503.822.3805

HOUSE OF ANTIQUE HARDWARE

Traditional by Design



Join Our Professional Trade Partner Program

Everyday Savings • Dedicated Support • Free Shipping

www.HouseofAntiqueHardware.com

Unmatched Durability, Custom Stackability



From the old to the new, we enhance tradition.

With craftsmanship backed by our 20 year warranty, your hardwood chairs will ***truly stand the test of time:*** our unmatched design will last for decades to come, guaranteed.



978-827-3103



eustischair.com



ABOVE Haddonstone has a dedicated team in Colorado who strive to create the finest stonework. Each design is hand crafted by the in-house technical team, steel fabricators, and stone casters.

RIGHT The skilled team at Haddonstone manufacture architectural stonework in three high specification materials to cater for renovation, retro-fit, or new build properties.



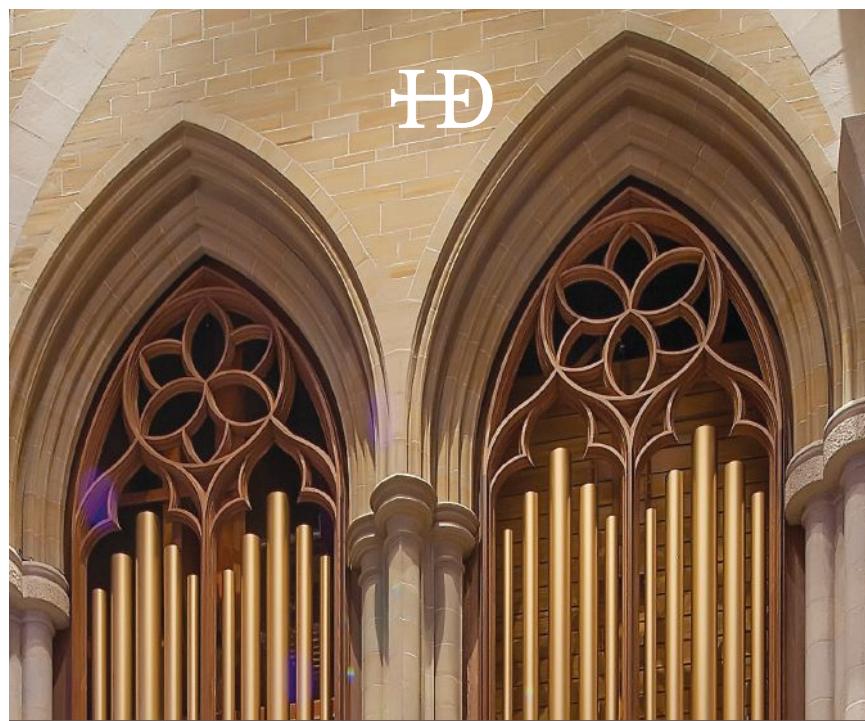
dictated by whether it's a masonry façade or another type of construction. A second option is to have the cornice unit L-shaped. "If it has to span a particular opening size, the cast reinforced concrete poured behind the material would provide that structural base. Effectively it becomes sort of a decorative cornice." Alternatively, there are thin-wall versions available from his company that can be screwed to the façade or retrofitted.

Any discussion of religious buildings and cast stone inevitably touches on traceries, the curvilinear openwork of Gothic windows. "Historically they were carved out of stone, but it's certainly something that can be done with the nature of cast stone." In fact, the manufacture of cast stone tracery windows was a lively industry around 1900. As West describes, the general process relies on a second type of mix. "The semi-dry mix, explained earlier, is really more for ornamental and self-supporting structures. A second type goes into the realms of a

wet-mix or a wet-pour mix that enables you to lay reinforcement in the molds while the mix is poured over." Typically though this reinforced cast stone is only self-supporting for the span of the window itself—not supporting any structure above. "The beauty of a tracery is where a rubber and fiberglass mold comes into play in order to be able to create the complex curves."

Adds West, "We've got our standard range of products, obviously, but we do everything to facilitate custom projects." First they take an architect's design and then produce shop drawings for approval. "After that we would make models, if required, and all the molds in-house. We have everything here, under one roof."

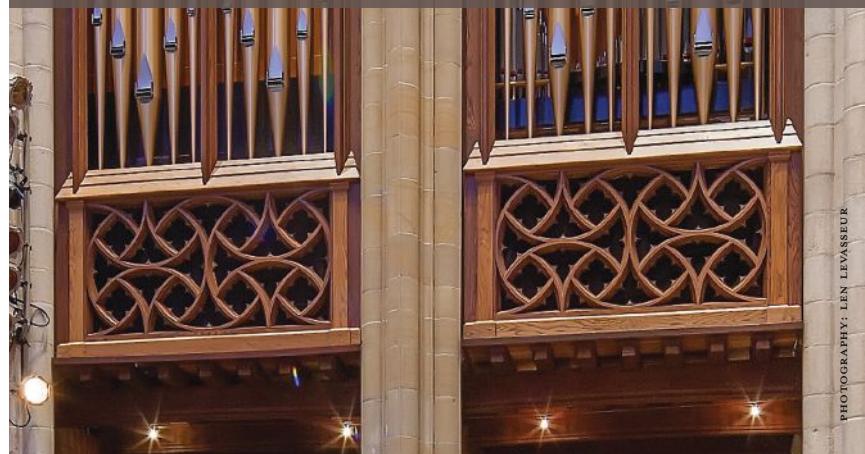
GORDON BOCK is an architectural historian, instructor with the National Preservation Institute (www.npi.org), and speaker through www.gordonbock.com.



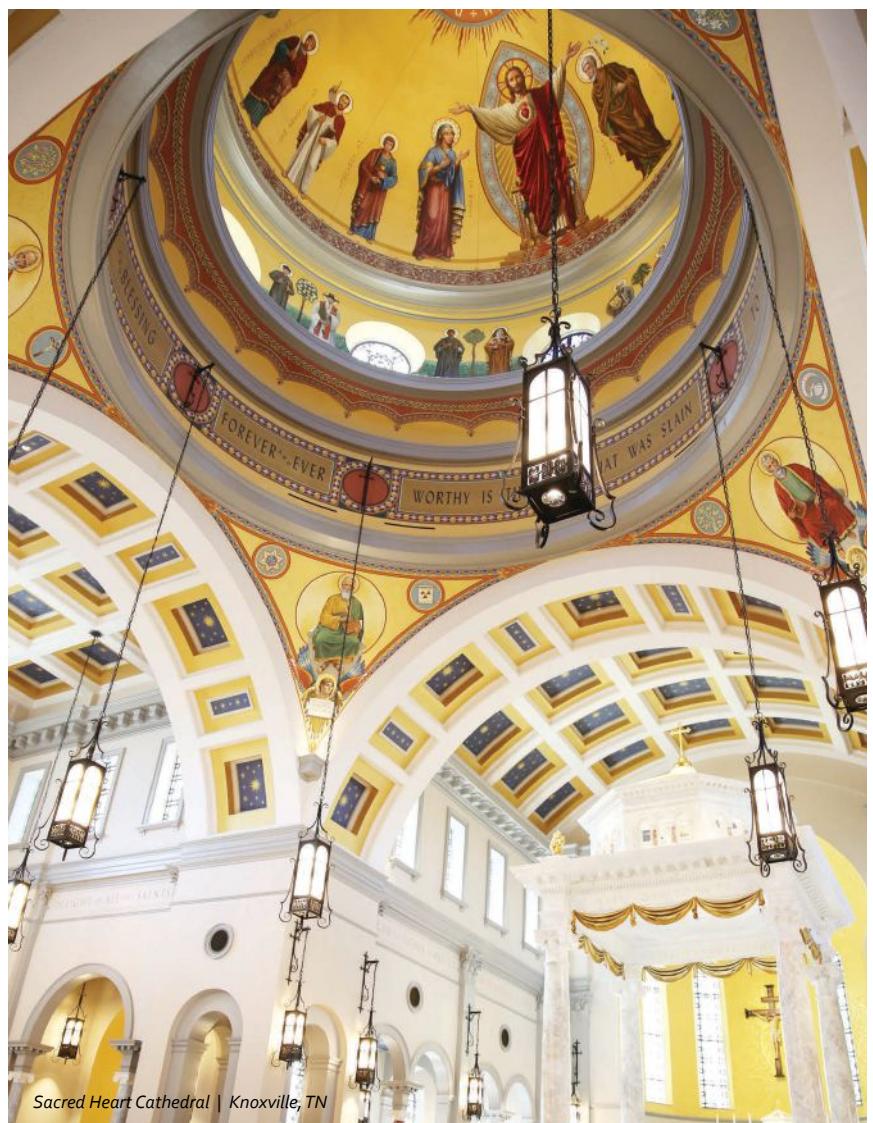
historic doors

FINE CRAFTSMANSHIP IN WOODWORKING

610-756-6187 ~ HISTORICDOORS.COM



PHOTOGRAPHY: LEN LEVASSER



Sacred Heart Cathedral | Knoxville, TN



EVERGREENE
Architectural Arts

CONSERVATION. RESTORATION. SPECIALTY CONSTRUCTION

CARE. CRAFT. COMMITMENT. CELEBRATING 40 YEARS

212.244.2800 | www.evergreene.com

WEBINARS
TRADITIONAL BUILDING

Features
Online Education
The Traditional Building Conference's Online Education series for architecture, building, and restoration professionals provides best practices, industry insights, AIA credits and more—for FREE.

2018 STANFORD WHITE AWARDS

Features
The Institute of Classical Architecture & Art's 2018 Stanford White Awards
The winners have been announced for The Institute of Classical Architecture & Art (ICAA)'s 2018 Stanford White Awards.

Merritt, International Interior Solutions Firm, Acquires Renowned Agrell Architectural Carving

Features
Acquisition showcases Merritt's continued company expansion and commitment to excellence.

CLASSICAL CAMPUS DESIGN

Features
Traditional Building Turns 30!
We're celebrating TRADITIONAL BUILDING magazine's 30th year this fall.

Book Reviews
Book Review: Robert Venturi's Rome
A book review on Robert Venturi's Rome by Fredrick Fisher and Stephen Harby.

Buckland, VA: A Labor of Love

Features
The community in Buckland, Virginia, has a deep commitment to historic preservation.

Visit us online at TraditionalBuilding.com to

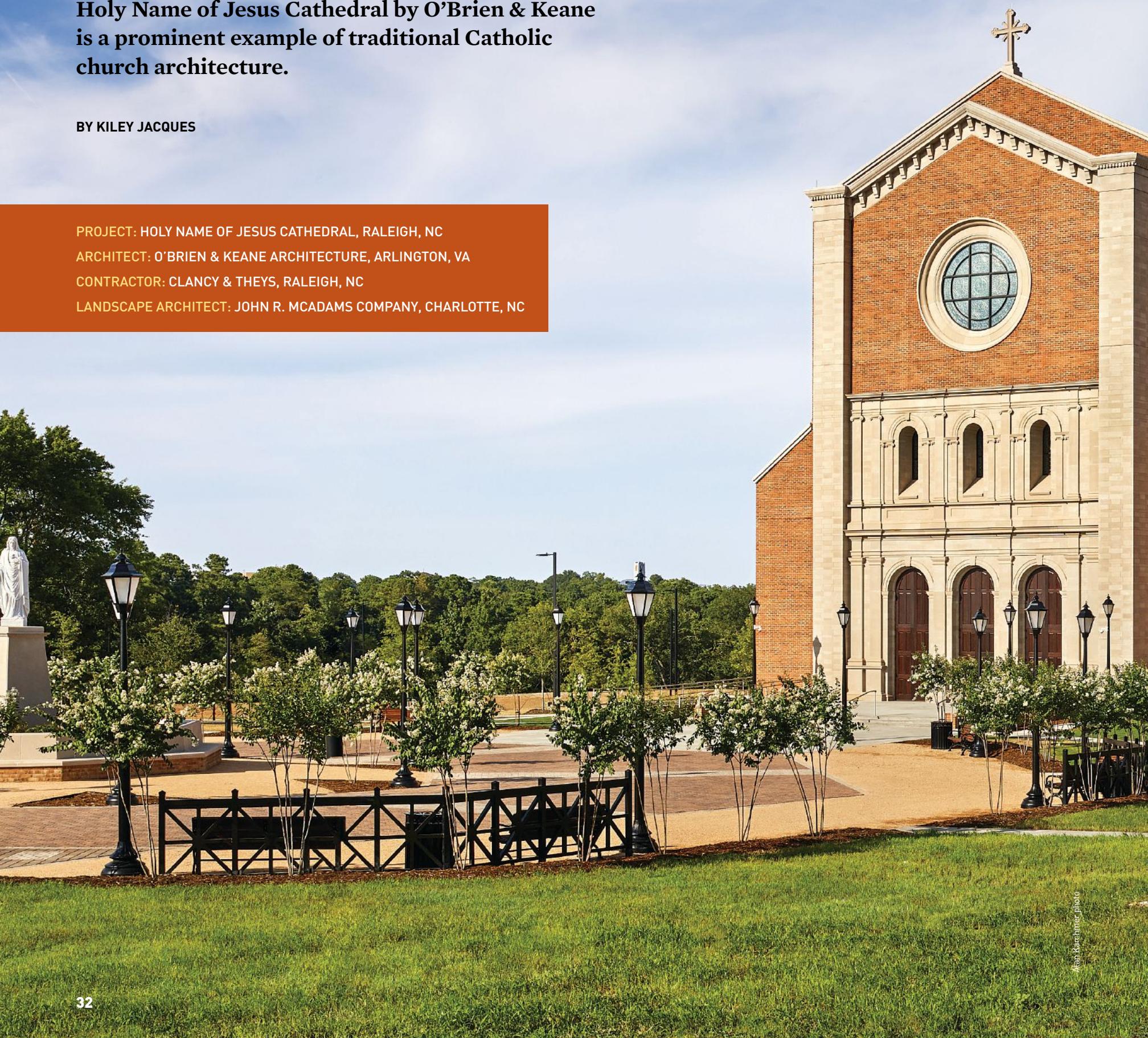
- learn about our free educational series offering AIA credits
- read our bloggers latest posts
- browse our book reviews and story archives
- and much more

Massing the Assembly

Holy Name of Jesus Cathedral by O'Brien & Keane
is a prominent example of traditional Catholic
church architecture.

BY KILEY JACQUES

PROJECT: HOLY NAME OF JESUS CATHEDRAL, RALEIGH, NC
ARCHITECT: O'BRIEN & KEANE ARCHITECTURE, ARLINGTON, VA
CONTRACTOR: CLANCY & THEYS, RALEIGH, NC
LANDSCAPE ARCHITECT: JOHN R. MCADAMS COMPANY, CHARLOTTE, NC



Arian Katchner/Photo



The design is similar to other cathedrals in that it was built on a 2,000-year-old heritage of sacred architecture. At the same time, it is intended to be a reflection of the values of the faith community, so it is bound to be unique.



“Church buildings must, above all things, act in service to the sacred rites with architecture that moves the soul to prayer . . .” — JAMES O'BRIEN

ABOVE Along with the majority of liturgical furnishings, the baptismal font—located at the western end of the nave, on the axis of symmetry—was designed and fabricated by the architect. The basin measures six feet in diameter.

OPPOSITE Cast stone, specified in a range of colors, is incorporated into the most prominent parts of the building, such as the west-entry façade and the exterior of the chapel. The roof surfaces are clad in copper.

LEFT: Alan Karchmer photo; OPPOSITE: Chris Sheridan photo



When O'Brien & Keane Architecture of Arlington, Virginia, were called upon to design and build a church for the Diocese of Raleigh, North Carolina, they were also being charged with addressing the needs of the area's growing Catholic community. Conceptualized in the fall of 2013 and dedicated in July 2017, the 43,000-square-foot Holy Name of Jesus Cathedral replaces the more diminutive Sacred Heart Cathedral to accommodate seating for 2,000 parishioners. The new building is a study in classical sacred architecture, with its emphasis on the cruciform structure and prominent dome, the latter of which serves to visually tie the church to downtown Raleigh. It is anticipated the church will host major liturgical celebrations, pilgrimages, and events for generations to come.

SACRED DESIGN

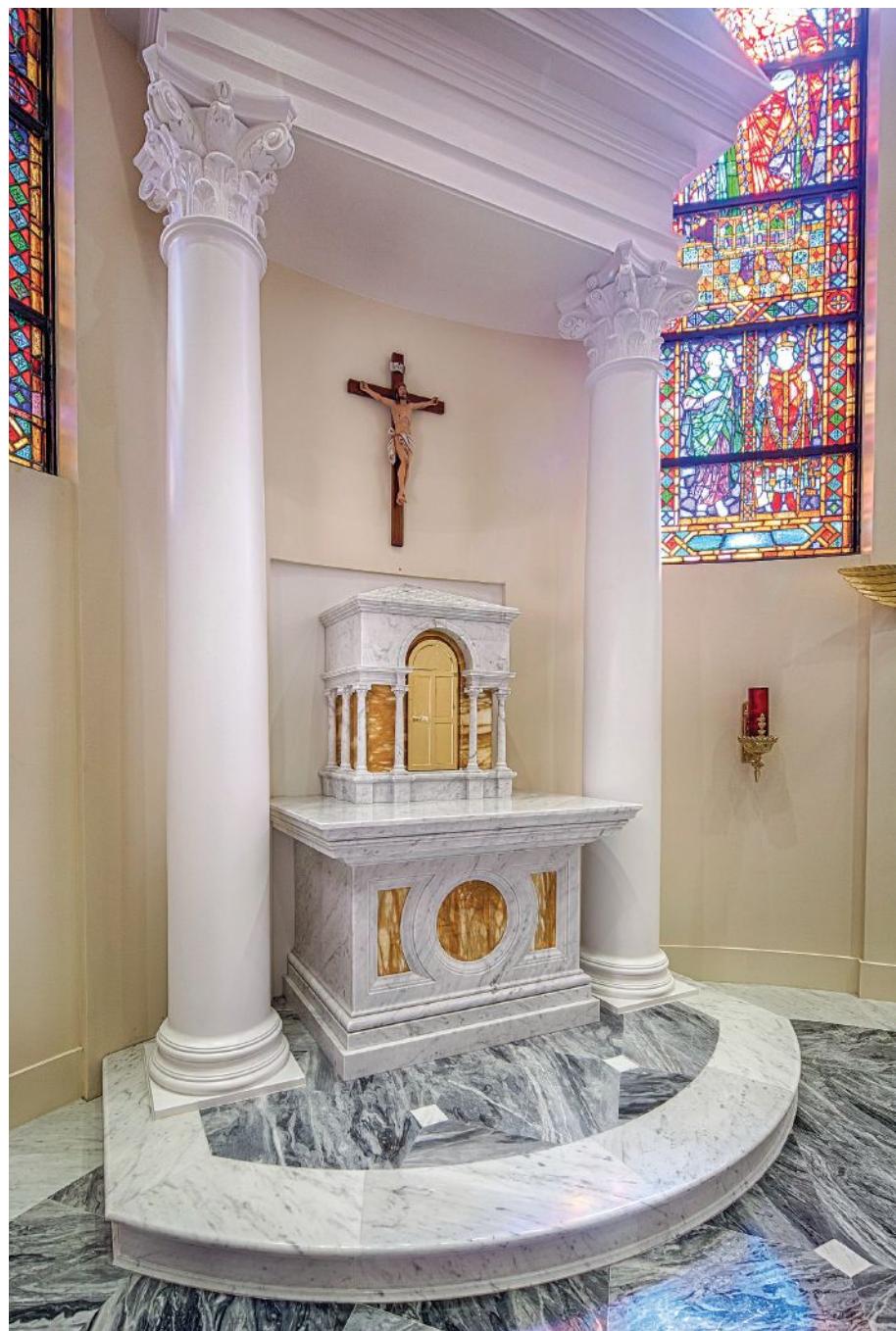
"Through our firm's experience in church design, says principal architect James O'Brien, "I've learned about some key [components] that combine to create sacred architecture. They include verticality, transcendence, focus, and hierarchy, to name a few. The cathedral presented an opportunity to put all of these [elements] to work."

Following the cruciform plan, the main axis of the building has an east-west orientation, with the entrance to the west, as is traditional and indicative of Catholicism in sacred scripture. O'Brien explains: "The cruciform shape is very important. Beyond being the basic symbol of the church, the cross orders the placement of the parts. The faithful are gathered in the nave (legs) and transepts (arms), doing the work of the church, while the crossing (heart) and apse (head) are the place of Christ, found in the sacraments."

The entry introduces the classical orders—the Doric being expressed in the first tier of the façade, the Ionic in

the second tier. The drum of the 162-ton copper-clad ribbed dome is denoted with paired Corinthian columns, an entablature, and 16 arched windows. And the sanctuary is located at the crossing under the dome, while the tabernacle is found in the eastern apse. Congregations sit in the nave and transepts enjoying light from clerestory windows, and an arcade separates the aisles.

"We took care to maintain vertical proportions throughout the nave and transepts," notes O'Brien, pointing out the arches, vaults, and the dome as some of the architectural features that accentuate verticality. "The motivation for transcendence is found in our desire



to build a place that is close to God,” he adds, noting that some of the spaces in the cathedral are carefully shielded from the surrounding environment, with thick walls that block outside noise to create a serene setting conducive to prayer.

A public plaza accommodates vehicular and pedestrian circulation, and functions as a social gathering place. To transition from the grounds to the interior spaces, visitors make use of a tall and spacious narthex—much like an open atrium—which also links to the Chapel of All Saints. O’Brien describes the movement from outside to in: “We provided a progression through spaces of increasing differentiation and solemnity—from our ordinary, worldly environment, beginning with the octagonal entry plaza, and continuing in procession to the holy altar.” The narthex was modeled on the courtyards of antiquity

and features the classical orders of Doric and Ionic, as well as a barrel vault.

EXTERIOR DETAILS

Wood-mold brick with grapevine mortar joints were used for the majority of the façade, while multihued cast stone is seen on the structure’s most prominent elements, such as the west entry façade and the chapel’s exterior. For texture and visual interest, the masonry includes corbeling (minor projections in the brickwork), and copper roofs tie the assembly together.

While the main entry is marked by Doric and Ionic features in its brick-work, cast stone piers, parapet, and window surrounds, those of the transept ends are simplified, though designed to visually relate. Notable above the cast stone entry is a round, 12-foot-in-diameter window set into a field of brick, which itself is framed in cast stone

piers and an entablature reminiscent of Romanesque design.

Ground-floor paired arched windows are arranged in 22 bays to punctuate the exterior walls of the nave and transepts. The composition tapers upward with single arched windows centered above the pairs in the clerestory of each bay. To distinguish the chapel as a special entity its exterior is straight cast stone, and for the joints to be parallel, the voussoirs were custom made to form the arches.

Topping the 173-foot dome is a decorative finial and a cross. Other embellishments include a balustrade, engaged Corinthian columns and moldings, rusticated brickwork, and quoins. An exceptionally special detail is the Santafiora cornerstone, which was blessed by Pope Francis and is inscribed with a gold-rendered image of a Christogram. Also impressive is the 154-foot

bell tower housing 50 bells of widely varying weights, one of which was salvaged from the original Sacred Heart Cathedral.

INTERIORS FOR THE AGES

Seating for the congregation is illuminated by clerestory windows and is located within the nave and transepts. Each transept seats 500 people and the nave holds 1,000. The design intent was for the pews to be close to the altar in order to enhance the connection between assembly and sanctuary. A 3,500-sq.ft. mezzanine, located above and to the west of the nave, accommodates a choir, 30 musicians, and a pipe organ with 61 stops.

“The dome reaches upward above the assembly, and through it sunlight illuminates the sanctuary directly below, serving as an architectural expression of the union of Heaven and Earth that

LEFT The tabernacle stands on an elevated platform within the eastern apse and was conceived as a miniature cathedral. Incorporating the Corinthian order was intended to denote its sanctity.

RIGHT Below the dome, the sanctuary platform houses the vital liturgical furnishings, with the altar of sacrifice as the focal element.

BETWEEN Inspiration for the design of the apse came from a scripture passage that includes a description of Heaven as a lamb joined by four creatures, 24 elders, and seven lamps.



THIS PAGE: Alan Karchmer photos; OPPOSITE: Alan Karchmer photo (left); Zu Chen photo (right)



takes place within our worship and prayer," says O'Brien. Below the dome, the sanctuary—including the altar of sacrifice, ambo, and cathedra—contains liturgical furnishings, and features the altar as the focal point. The flooring is made of Bardiglio Nuvolato marble slabs with diamond accents of Bianco Carrara C, and a border of Bianco Carrara C marble with Giallo Siena diamond accents. "The most sacred and important feature of the cathedral is the altar, which we placed to make unmistakably prominent and powerful," notes O'Brien.

Ten large stained-glass windows are each flanked by two smaller windows. Additional windows are placed in an alternating pattern with the salvaged stained-glass windows found in the nave and transepts. The borders of the newly fabricated windows mimic those of the originals but have translucent glass rather than biblical scenes. Back to the idea of verticality, O'Brien says: "We placed windows high in the walls so that daylight enters the space from above."

The tabernacle stands on an elevated platform within the eastern apse and

was conceived as a miniature cathedral. Inspiration for the design of the apse came from a scripture passage that includes a description of Heaven as a lamb joined by four creatures, 24 elders, and seven lamps.

Incorporating the Corinthian order in the chapel, which is embedded in the main cathedral building, was intended to denote its sanctity. The chapel seats 40 congregants and features marble liturgical furnishings and seven windows—four depicting the Evangelists, two decorative windows, and one round

window featuring an angel.

All of the liturgical furnishings—designed by O'Brien & Keane—are rendered in Bianco Carrara C marble with Giallo Siena marble accents on the pilasters and panels. Of the altar, ambo, cathedra, tabernacle, and font, as well as the altar and tabernacle in the chapel O'Brien says: "They were composed as an ensemble of related pieces that together, I hope, begin to form a unified design expression. These elements are intended to showcase the beauty of Creation and through it, the majesty



of the Creator.” Liturgical artwork is found along the interior perimeter and includes: shrines to Our Lady of the Immaculate Conception and St. Joseph the Worker, 24 statues of selected saints, and 14 Stations of the Cross, among others.

GREEN ELEMENTS

The Diocese has repurposed this land multiple times. For this incarnation, it was important not to disturb the area’s natural habitats—a demonstration of the church’s “commitment to and leadership of the stewardship of our natural resources.”

Therefore, the building and grounds were sited on a previously developed portion of the land. The cultivated landscape includes a tree preservation area, buffer yards, a wetland preservation, gardens, and sports fields. Plantings feature native and drought-tolerant species to minimize irrigation needs.

Other green strategies include a tighter than average building envelope, energy-efficient components including the primary HVAC systems, and salvaged materials in the form of stained-glass windows from the Church of the

Ascension, which are now found in the nave, transepts, and chapel.

All told, the Holy Name of Jesus Cathedral stands in homage to the Catholic Church’s respect for classical form and sacred function. It is set to perform with grace well into the future—its past in full view. As O’Brien concludes: “We were asked to design a ‘timeless and traditional’ building. I hope the cathedral is seen in that way—as something built on centuries-old heritage of Catholic architecture, even though it is a thoroughly modern, high-performance building.”

LEFT The cathedral was designed using the “key ingredients” of sacred architecture: verticality, transcendence, focus, and hierarchy. The building was intended to stand as a witness to the community’s faith. For that reason, the silhouettes of the dome and tower punctuating the skyline are vital. From within the tower, the bells embody the “voice” of the cathedral, calling out and welcoming the people.

KEY SUPPLIERS

ARCHITECT
O’Brien & Keane

STRUCTURAL ENGINEER
Morrison Engineers

MEP ENGINEER
Brummett Engineering

CIVIL ENGINEER
John R. McAdams Company

GENERAL CONTRACTOR
Clancy & Theys Construction, Inc.

STRUCTURAL STEEL CONSTRUCTION
Steelfab, Inc.

WALL CONSTRUCTION
Sears Contract, Inc.

ROOFING CONSTRUCTION
Baker Roofing Company

MASONRY AND CAST STONE CONSTRUCTION
Brodie Contractors, Inc.

MECHANICAL CONSTRUCTION
Newcomb & Company

ELECTRICAL CONSTRUCTION
Code Electric

MARBLE FLOORING AND FURNISHINGS FABRICATION
Roberto Pagliari Stone Consulting, SAS

MARBLE INSTALLATION:
Booms Stone Company

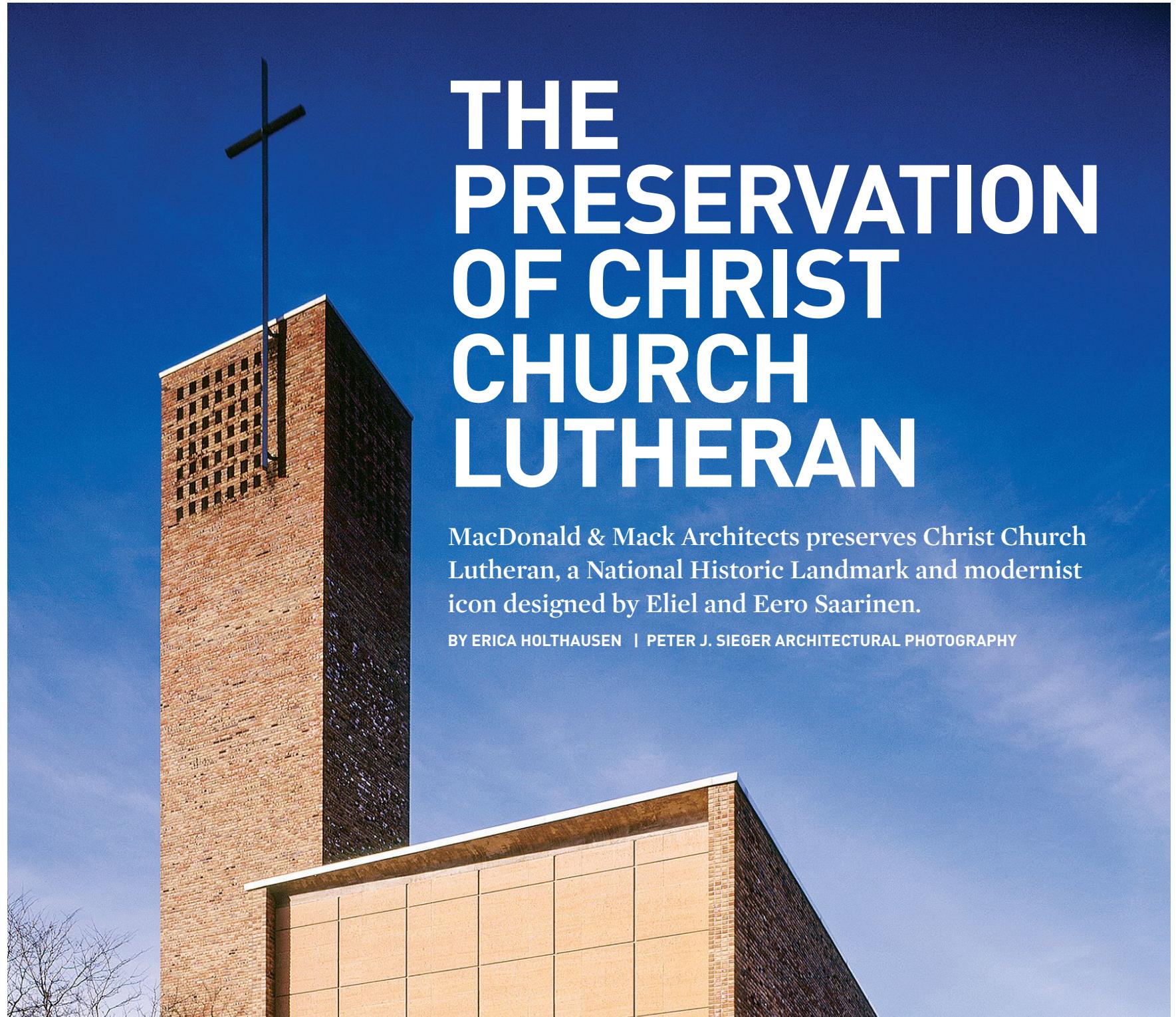
PORCELAIN TILE CONSTRUCTION
David Allen Co.

ORGAN DESIGN AND FABRICATION
CB Fisk, Inc.

STATUES
Ferdinand Stuflesser 1875

STAINED GLASS WINDOWS
Beyer Studios

CUSTOM LIGHTING FIXTURES
Rambusch Lighting



THE PRESERVATION OF CHRIST CHURCH LUTHERAN

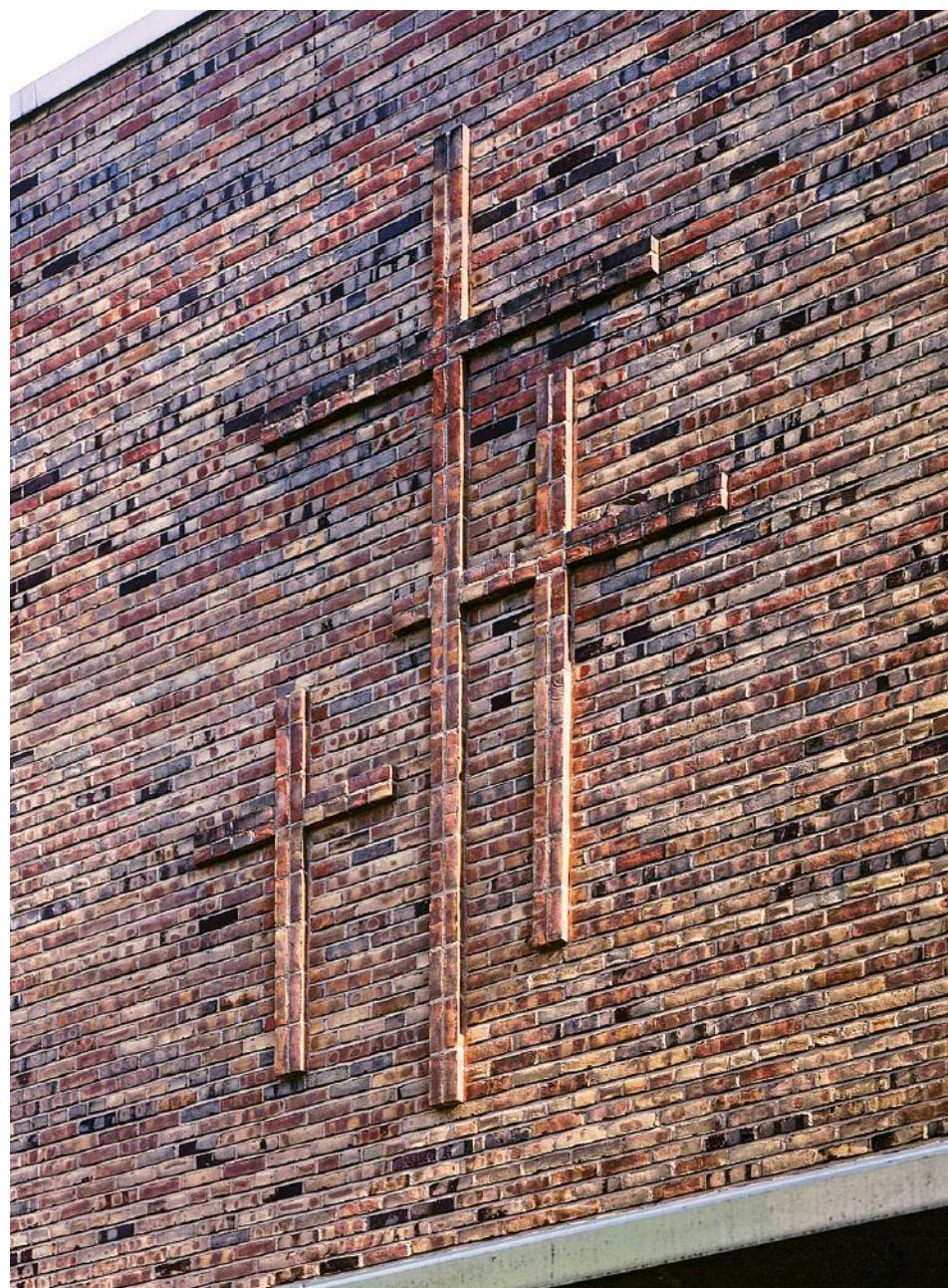
MacDonald & Mack Architects preserves Christ Church Lutheran, a National Historic Landmark and modernist icon designed by Eliel and Eero Saarinen.

BY ERICA HOLTHAUSEN | PETER J. SIEGER ARCHITECTURAL PHOTOGRAPHY

PROJECT Christ Church Lutheran, Minneapolis, MN

ARCHITECT MacDonald & Mack Architects, Minneapolis, MN
Robert Mack, FAIA, FAPT, Partner in Charge
Angela Wolf Scott, AIA, LEED AP, Project Architect





Hidden away in a Minneapolis residential neighborhood, Christ Church Lutheran is one of the nation's first modernist churches and an extraordinary example of twentieth-century ecclesiastical architecture. Designed by Eiel Saarinen, the chapel is adjacent to a later addition designed by his son, Eero Saarinen.

The chapel was completed in 1949, and is considered by many to be Saarinen's masterwork. From the outside, it is unassuming, a steel frame clad with bricks of varying colors and an eighty-eight-foot tall bell tower crowned by an aluminum cross. A glass-enclosed partition connects the tower to the nave.

The interior of the chapel is finished with rose-colored Chicago common brick. To enhance the acoustics of the sanctuary, the brick walls undulate gently, reducing echoes while amplifying the sounds of the congregation. The wall at the front of the sanctuary is curved and washed lightly with white paint. It is adorned with a simple aluminum cross.

Natural light streams through a hidden glass partition, illuminating the chancel.

"Saarinen knew exactly what he was doing with the composition, form, and materials," says Angela Wolf Scott, AIA, of MacDonald & Mack Architects. "He knew how all of that fit together to meet the needs of the congregation. It is a space designed for humans—simple, quiet, and lovely."

A single-story hallway connects the sanctuary to the 1962 addition, an education wing designed by Eero Saarinen that sits on the other side of a landscaped courtyard. Known for his bold futuristic designs, including the St. Louis Gateway Arch, Eero choose to pay homage to his father's work. The single-story building is constructed of brick, identical to that used on the church. Floor-to-ceiling windows mimic the design of the nave and provide a view across the courtyard to the chapel. Designated a National Historic Landmark in 2009, Christ Church Lutheran is the only building where the work of father and son can be seen side-by-side.

A DETERIORATING BELL TOWER LAUNCHES A SIGNIFICANT PRESERVATION EFFORT

In 2007, the church became concerned about the deterioration of the bell tower. Corroded metal, eroded mortar joints, and spalled brick was visible on all four sides. MacDonald & Mack Architects was hired to examine the building, assess the masonry and windows, and mitigate damage caused by water filtration and underlying structural issues.

Will Stark, a preservation planner and member of the congregation, recognized the danger posed by the deteriorating bell tower. In 2008, he was one of the founders of the Friends of Christ Church Lutheran, an independent nonprofit organization dedicated to preserving the church and sharing its history.

Stark died from pancreatic cancer last summer, leaving behind an extraordinary legacy. "Will was the glue that held so much of the recent preservation work together," says Wolf Scott. "He organized and spearheaded projects, gained consensus for approach and work, managed the big

The exterior of the chapel is simple, with little in the way of decoration. Three brick crosses serve as relief elements on the wall adjoining the bell tower.



ABOVE The white-washed wall at the front of the sanctuary is adorned with a simple aluminum cross. Natural light streams in from a hidden glass partition, illuminating the chancel.

OPPOSITE The brick walls of the nave undulate gently, reducing echoes while amplifying the sounds of the congregation.

picture, wrote and tracked grants, and led the fundraising efforts.

Under Stark's leadership, the Friends received funding from the National Park Service's Save America's Treasures initiative. As a stipulation of the grant, construction documents were reviewed and approved by the State Historic Preservation Office and the National Park Service. It also requires future work to be reviewed and approved by the Minnesota State Historic Preservation Office.

The deterioration of the bell tower was caused largely by its structural reinforcements, which were integrated into the masonry joints every three courses. As the mortar aged and cracked, water seeped through and started to rust the metal reinforcing. The expansive force of rusting, referred to as oxide jacking or rust burst, broke the surrounding mortar and brick.

"There was no good way of dealing with it," says Wolf Scott. "We couldn't leave the structural reinforcements in place, so we put together a treatment philosophy that called for us to do as little as possible while mitigating those things that would cause ongoing

damage to the tower. We specified that the masonry contractor repoint the entire tower, removing the mortar to a depth of two inches or until they found the reinforcing in every third course."

The masonry contractor removed most of the metal reinforcing and replaced every single spalled brick. "If we left bricks without their faces on the tower, water could get into the reinforcing," says Wolf Scott. "We needed to make the tower as water resistant as possible."

The restoration of the tower was completed in 2011. Wolf Scott then developed a Historic Structure Report that documents the building's history and current condition and outlines treatment recommendations.

DEFINING A PRESERVATION PHILOSOPHY FOR CHRIST CHURCH LUTHERAN

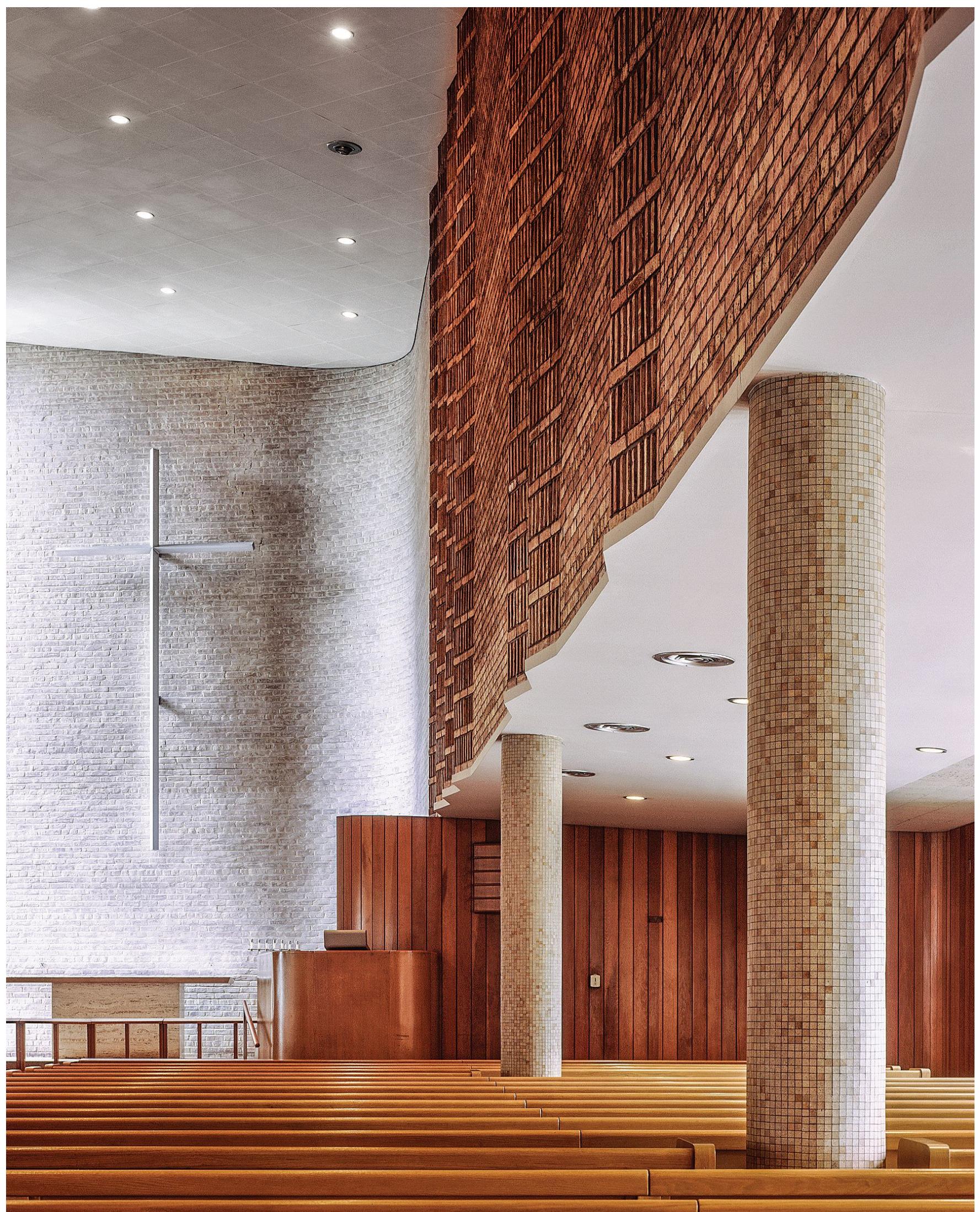
Since the restoration of the tower, the church has completed several major projects, including accessibility upgrades, structural repairs, courtyard and landscape restoration, roof repairs, masonry and hardware restoration,

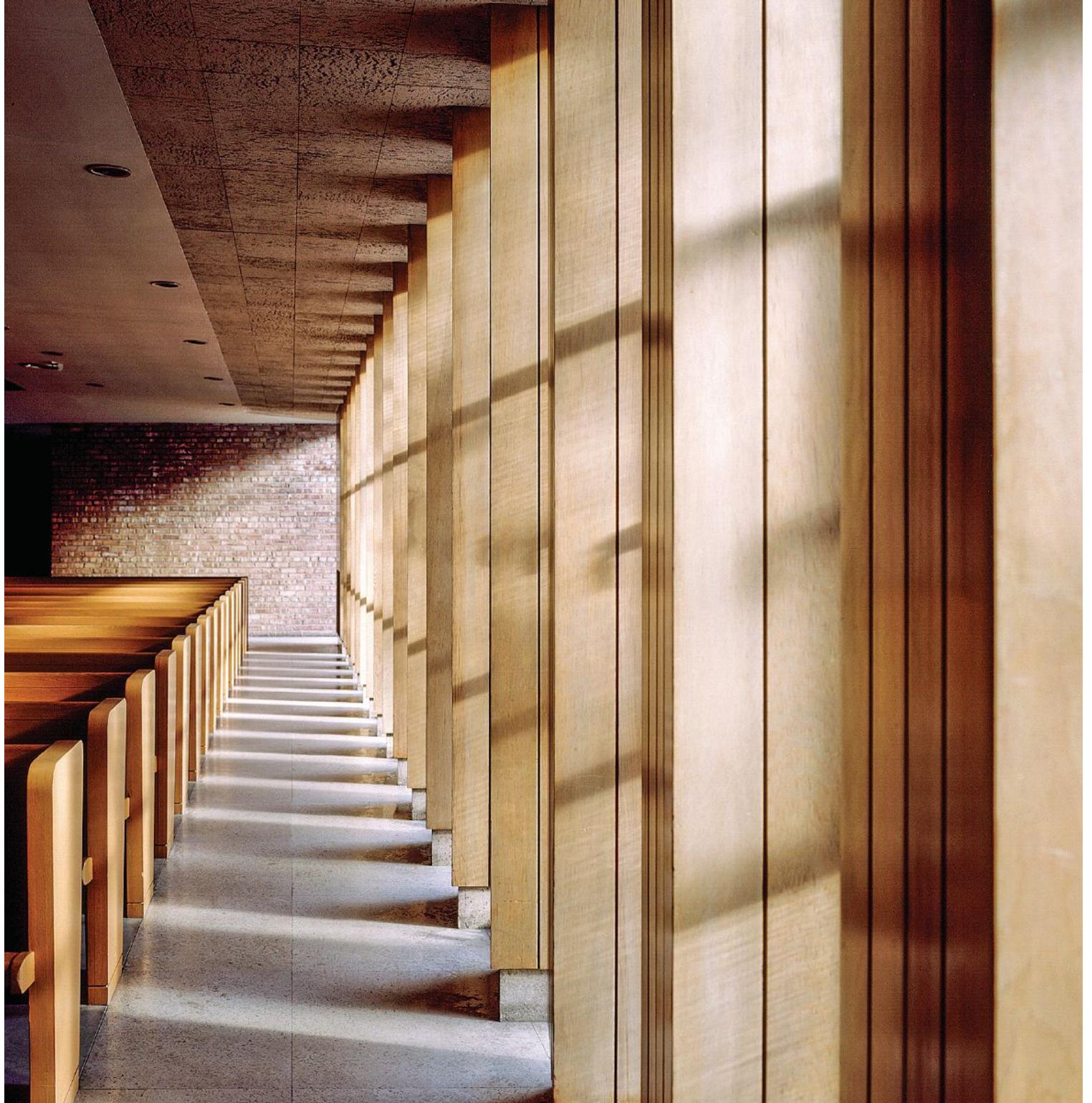
and extensive stormwater management and waterproofing. Modifications to the organ room and restoration of the organ screen were completed, and a new organ, designed and built by Dobson Pipe Organ Builders, was recently installed. A landscape master plan and design for a new columbarium are currently underway. But it was the recently completed restoration of the baptismal font that defined the preservation philosophy for Christ Church Lutheran.

"The baptismal font is the entire building in one little piece," says Wolf Scott. "It is every struggle, every philosophical question, every material question—everything embodied in one object."

Designed by Eliel Saarinen, the gently-curving, mirror-finished baptismal font plays with light that reflects off the sides of the vessel and dances with the water. But the mirror finish was pocked and deteriorating, and the plating substrate was corroded.

"The question that kept coming up is when there's a conflict between keeping the integrity of the fabric and keeping the integrity of the design—when the design

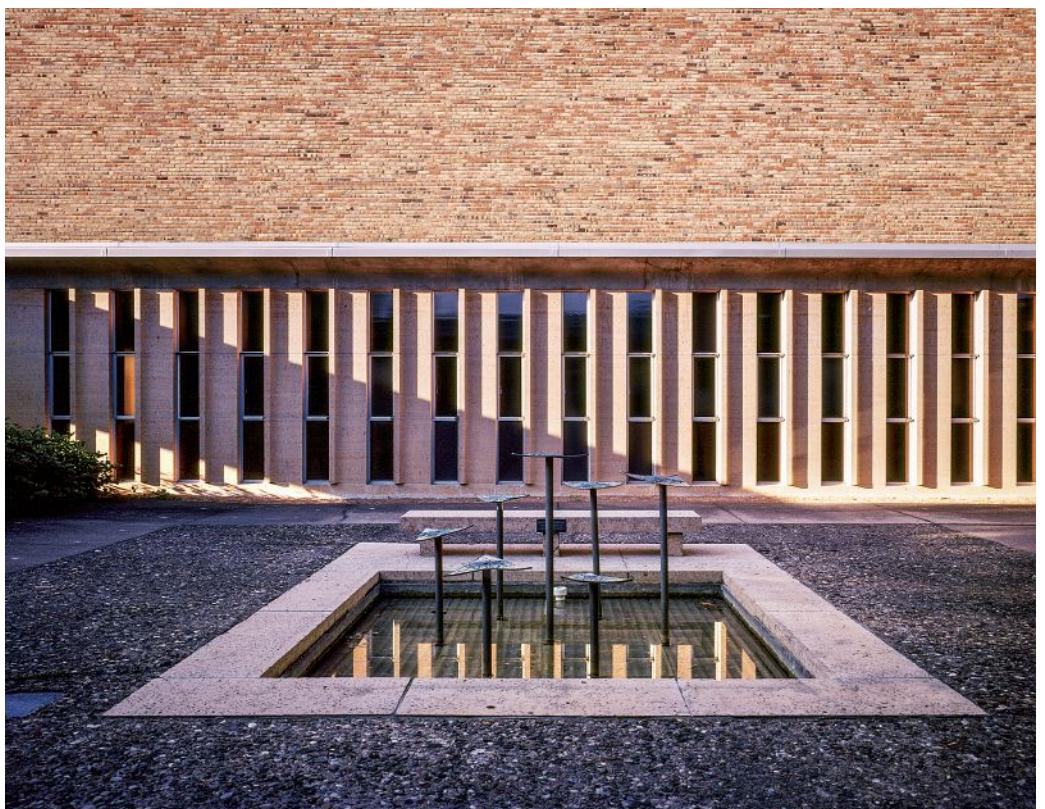


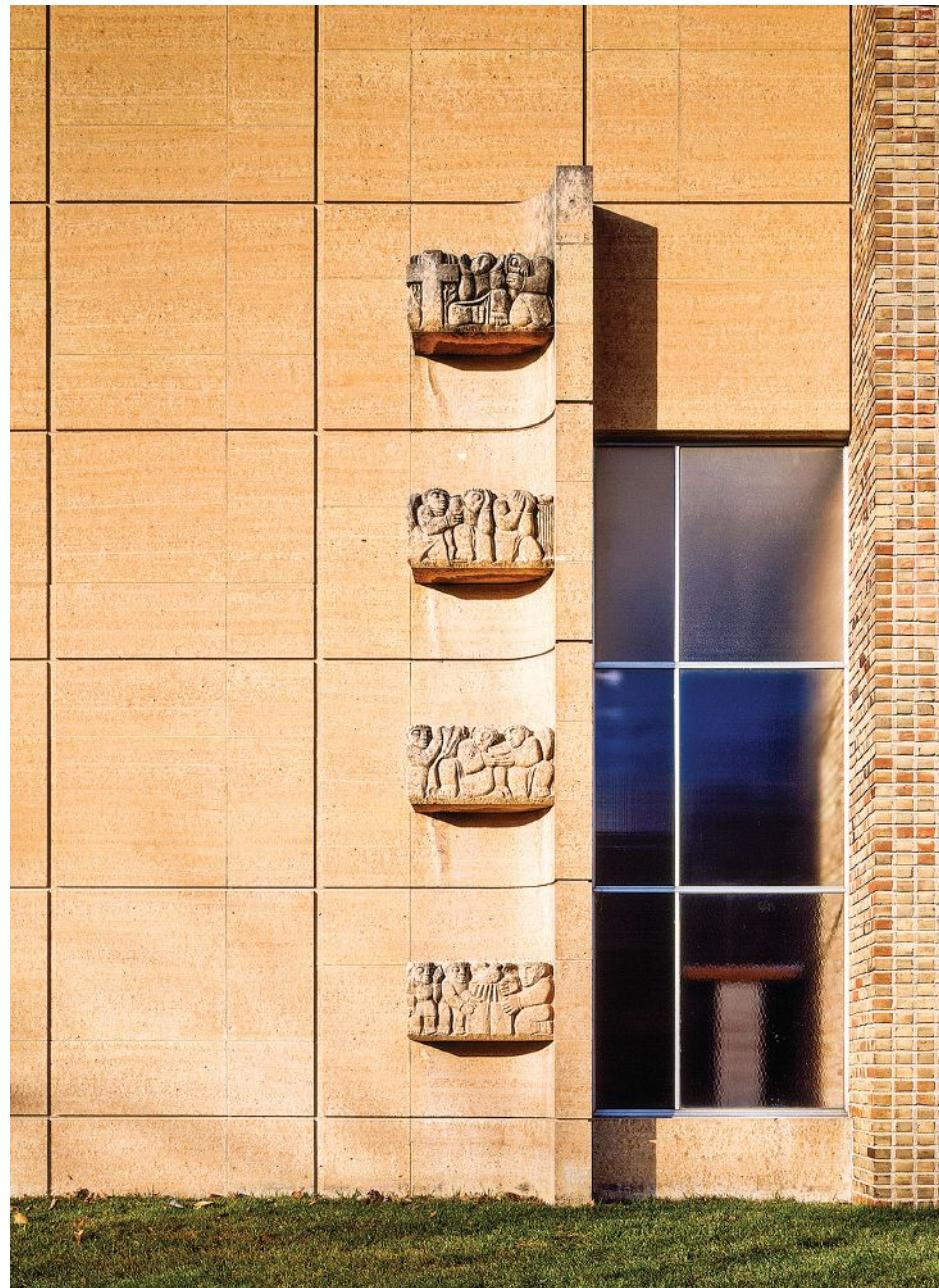


ABOVE The nave provides seating for 600 parishioners. The high clerestory walls of the nave give way to single-story wings that create a more intimate space.

RIGHT & CENTER An outdoor arcade and single-story hallway connect the chapel to the education wing, and creates a small landscaped courtyard with raised planters and a central fountain.

FAR RIGHT A Mankato limestone wall on the east façade of the chapel serves as a backdrop for a series of four sculptures—faith, hope, love, and education—by William M. McVey.





is the thing that is significant—how do you resolve it?” says Wolf Scott.

The Minnesota State Preservation Office felt that the baptismal font needed to be repaired. Midwest Art Conservation Center experimented with different techniques, but these efforts sacrificed Saarinen’s original design.

“The baptismal is just lovely and it’s the heart of the church,” says Wolf Scott. “There are so few instances where modern religious architecture has a chance to shine and show iconography, and this basin nailed it! But if we lose that mirrored finish, and you’ve got all these pockmarks, and it’s still deteriorating, then what are we doing this for?”

Today, the repaired basin is housed in the church’s archives. “We got consensus that we are not conserving the fabricator’s work,” says Wolf Scott, “we are conserving Saarinen’s work.”

Replacing the basin was more challenging than anticipated. Modern processes used to create a mirrored finish didn’t have the same effect as the original, and there were several barriers with substrate materials. After experimenting with base metals, finish metals, and finishes, the baptismal font was reinstalled in October 2018.

“It takes a village to do work like we’ve done here,” says Wolf Scott. “There’s an incredible village at Christ Church Lutheran.”

KEY SUPPLIERS

STRUCTURAL ENGINEER Mattson Macdonald Young Engineers

MEP ENGINEER Dunham Engineers (Historic Structures Report)
Nelson Rudie and Associates (Construction Projects)

LANDSCAPE ARCHITECT Nathan Anderson

CIVIL ENGINEER Anderson Engineering

CONTRACTORS Macpherson Towne Co.; Watson Forsberg Co.;
Jackson and Associates

OBJECTS CONSERVATOR Midwest Art Conservation Center

AWARDS + DESIGNATIONS

American Institute of Architect’s 25-Year Award (1977)

U.S. National Register of Historic Places (2001)

U.S. National Historic Landmark (2009)

Minnesota Preservation Honor Award (2012)

SIGNIFICANT GRANTS

Save America’s Treasures
Minnesota Historical and Cultural Heritage Legacy Grant



Divine Dome

Rambusch Decorating Co., creates the Trinity Dome mosaic at the Basilica of the National Shrine of the Immaculate Conception.

BY NANCY A. RUHLING

KEY SUPPLIERS

MOSAIC DESIGNER/ARTISTIC OVERSEER
Rambusch Decorating Co.,
Jersey City, NJ

MOSAIC FABRICATOR
Travisanutto, Spilimbergo,
Italy

**DESIGN FOR DOME RING
TEXT AND PENDENTIVES**
St. Jude Liturgical Arts
Studio, Havertown, PA

GENERAL CONTRACTOR
Rugo Stone, Lorton, VA

Photos by Rambusch Decorating Co.

For nearly a century, the Basilica of the National Shrine of the Immaculate Conception, which believers affectionately refer to as America's Catholic Church, has been a divine design work in progress.

The cornerstone of the largest Roman Catholic Church in North America, which is in Washington, D.C., was laid in 1920, and its crowning jewel, the mammoth mosaic that adorns the heavenly Trinity Dome, was completed in 2017.

During the intervening decades, construction stopped and started as finances ebbed and flowed. The long-term project brought about the artistic collaboration between the basilica, the nation's preeminent Marian shrine, and Rambusch Decorating Co., a fourth-generation family firm, run by twins Edwin and Martin, that specializes in lighting, glasswork and furnishings and that also is well versed in liturgical design.

Rambusch, which won the commission for the Trinity Dome, did its first work for the basilica way back in 1931, the year the crypt church was completed. That project was Our Lady of Lourdes chapel, the first one outside the crypt.

Then it worked as the designer and artistic overseer on several other projects, including the Italian chapel, the Redemption Dome, the Incarnation Dome, and the gallery vault. For those latter projects, it worked with its own trinity team with general contractor Rugo Stone and mosaic maker Travisanutto.

"We feel the building is our ongoing client," says Martin Rambusch, who is in charge of crafts and chairman of the board of the Jersey City, New Jersey, company that was founded in 1898. "The Trinity Dome is a pinnacle project for us and for the building. My brother, Edwin, has noted how rewarding it is to see the three mosaic domes, which our father, Viggo and Edwin, president of the firm, started in 2006, brought to such a glorious conclusion less than 12 years later."

Even by the basilica's iconic standards, it was a monumental project: Painted a basic off-white before the installation of the mosaic, the dome, which is 88.5 feet wide and 44.25 feet tall, covers over 18,000 square feet. The resulting mosaic holds the title of the largest completed in a dome in North America.

"There's a succession of domes in the shrine, and our charge was to create a mosaic in the Trinity Dome that would relate to those in all the other domes so that it would look like it had been in the basilica forever," he says.

As the project evolved, the design

team worked with the church's iconography committee.

"The original committee, which was formed in the mid-1950s, only had left a verbal definition of what the design was to be," Rambusch says. "All we knew was that there was to be a depiction of the Blessed Virgin Mary and The Most Holy Trinity."

Rambusch and the basilica committee fleshed out the design, which ultimately drew in a procession of saints associated with the Americas and the shrine as well as angels.

Thus, the dome is populated by a coterie that includes St. John Paul II, the first pope to visit the National Shrine; the Archangel Michael; St. Juan Diego of Mexico, the first canonized Native American man; the Archangel Gabriel; St. Rose of Lima, the first canonized saint of the New World who is also depicted in the shrine's Guadalupe Chapel; and St. Teresa of Calcutta, who was an honorary U.S. citizen.

The basilica's founder, Bishop Thomas J. Shahan, had a grand vision for the project. He considered the Trinity Dome "the crowning jewel" for the shrine, which he christened a "hymn in stone."

"We kept refining the mosaic design down to the wire," Rambusch says, calling the last-minute decisions a "hair-graying and hair-losing" challenge. "Some of the saints and figures were not depicted anywhere else because they are saints of today, so we had to decide how to do that. We used reference materials to create true and modern renditions."

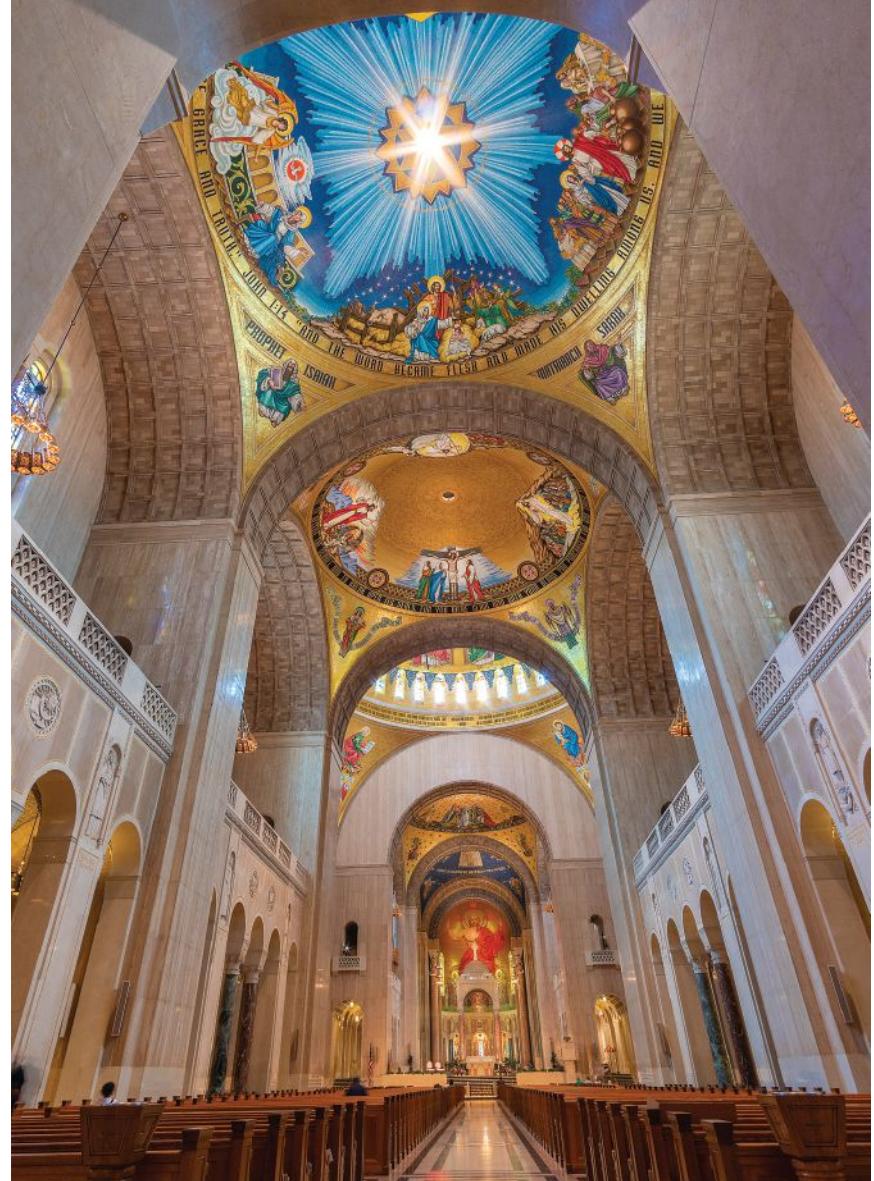
Because the basilica wanted Masses, which began on Easter Sunday in 1924, to continue during the installation, Rugo Stone built a scaffold that Rambusch likens to a "building within a building at the top of the church."

He added that during the course of the work, which was financed in large part by a fund-raiser on Mother's Day in 2017 with a special collection in parishes across the country, only one Mass had to be canceled.

The 14 million pieces of Venetian glass in more than 1,000 color variations were handmade in Venice and Murano and fabricated in Spilimbergo, Italy, by Travisanutto. Weighing 24 tons, they were shipped to the basilica in 60 boxed crates and installed over eight months.

"There are only two families in the world that make smalti," Rambusch says. "Their technique is centuries old."

Using what is called the "reverse" or "indirect" method that was invented in Italy in the late 19th century, some 30 artisans created the images in reverse and affixed them on sections of special graph paper with paste made from flour and water.



LEFT The mosaic in the Basilica of the National Shrine of the Immaculate Conception, designed and installed by Rambusch Decorating Co., features 14 million pieces of Venetian glass in more than 1,000 color variations.

ABOVE The decoration of the Trinity Dome, the shrine's heavenly center point, was designed to complement the succession of domes in what is called America's Catholic Church.

The 30,000-square-foot sections were cemented paper-side-up to the dome, which is a complex geometrical shape, according to an intricate, massive map. Once in place, artisans used water, soft brushes and sponges to dissolve the paper and paste to reveal the dazzling mosaic.

"It was like putting together the pieces of a giant jigsaw puzzle," Rambusch says, adding that it took a team of 20 to handle the installation. "This method saved us a lot of time and money. If we had done this by the direct method—cementing the tiles piece by piece onto the wall, it would have taken us too long to complete the project."

The circular base of the Trinity Dome is a mosaic with the words of the Nicene Creed, which begins, "I believe in one God, the Father Almighty, maker of heaven and earth and all things visible and invisible."

The dome's quartet of pendentives, designed by St. Jude Liturgical Arts Studio, features the four biblical evangelists—Matthew, Mark, Luke, and John.

From its inception, the National Shrine, approved in 1913 by Pope Pius X, who made a personal donation of the lire equivalent of \$400, has been envisioned as a gift from American Catholics to Mary's devotees around the globe. More than 80 chapels and oratories have been added.

The Trinity Dome was dedicated fittingly, on Dec. 8, 2017, the Solemnity of the Immaculate Conception, which is the patronal feast day of the United States and the basilica.

When Rambusch gazed up at the completed dome topping what is one of the 10 largest churches in the world, he was in awe. "It gave me great satisfaction," he says. "It's a truly fitting completion of this dynamic, living space."



The back of the house, which has an expanse of lawn, features wooden balconies and a dining pergola.

PROJECT: SPANISH COLONIAL
ARCHITECT: FERGUSON & SHAMAMIAN

Spanish Roots

Ferguson & Shamamian recreate the vocabulary of an original Spanish Colonial house in Santa Monica.

BY NANCY A. RUHLING | PHOTOS BY LISA ROMEREIN







It started out merely as a renovation project. The owners of the Spanish-style Roaring Twenties home in Santa Monica, California, had raised their children in the house, and it had such sentimental value that they had no desire for drastic construction.

But with the kids grown up, the couple decided to make some cosmetic changes that included reinventing the master suite and changing the configuration of some of the main rooms to make them more in sync with their empty-nest lifestyle.

They commissioned the award-winning New York City-based firm of Ferguson & Shamamian Architects to create designs that respected and referenced the home's architectural style. During the process,

however, it was discovered that the 1924 structure, which lacked sufficient reinforcement in the foundation and walls, was not earthquake proof.

The design team, including interior designer Michael S. Smith of Santa Monica and landscape designer Stephen Block of Inner Gardens in Los Angeles, consulted with an architectural historian, and all agreed that the couple had little choice but to build a new house.

"It wasn't easy for us to get special permission from the city to tear down the old house," says architect Oscar Shamamian, AIA, founding partner of the firm. "But ultimately, it was determined that the life safety issue far outweighed preservation."

There was one enormous advantage to building a new house: Zoning rules allowed the architects to flatten part of the narrow, 1.5-acre rear-steep site allowing the clients to take better advantage of their land.

Because of this change, the pool house was connected to the main house under the rear lawn through a series of rooms that

include a massage room and a home gym, making it a primary structure instead of an accessory building. A flat grass lawn covers the top, enhancing the landscape.

"We were able to create what I call a collage of differing volumes that give the house a rambling quality," Shamamian says. "The staggered masses of varying heights allowed us to break down the actual size of the house while accommodating a significant program."

When designing the 12,000-square-foot, two-story house, Shamamian, and Tom McManus, principal in charge of the project, turned to the traditional Spanish Revival and Mediterranean homes that define the Southern California landscape as well as to historic Spanish architecture precedents.

"This was one of our first forays into Spanish-style architecture," says Shamamian. "And it was our first all-out Spanish-style project to use real 15th- and 16th-century elements. We wanted the details to be authentic, but they had to work in a modern capacity without seeing the modernity."

The home, which is in a private and

OPPOSITE Wooden entry gates, painted in a celadon hue, lead to the courtyard garden, a lush space whose focal point is a lily pond.

ABOVE In the living room, built-in bookcases are paneled with decorative wallpaper and feature custom-made air-return grilles whose design is based on traditional Spanish Revival styles.



ABOVE The husband's study, which has arched windows, includes an alcove for a desk, and serves as a space for meetings and media viewing.

CENTER The wife's office, which is tucked under the lower roof, is cozy and private and has a stairway to the master suite.

FAR RIGHT A towering stucco chimney, decorated with an antique medallion, creates a cozy outdoor space for sitting.

intimate setting with backyard panoramic views of a golf course in the valley below, is made of stucco and African teak.

"We used these two materials to break down the massing—in places, for instance, the top floor is all teak—and as a way to tie it to the two-story wings," McManus says, adding that African teak corbels were employed to further define the boundaries between stucco and wood sections in an elegant manner. Shamamian adds that the technique adds visual interest and allows the house "to be seen as two pieces instead of one large mass."

The house's Spanish-style roots include wood balconies, reclaimed terracotta pavers and a roof of reclaimed Spanish tiles. The windows and doors are a major defining feature: They are metal instead of traditional wood.

"Los Angeles has a history of thin metal doors and windows that came in in the 1930s and 1940s," McManus says. "We chose to use them in this project so it would look as though the house had always been there and merely had been updated with them."

In the alcove of the first-floor library, metal diamond-pattern glass windows further the old-world feel. "We wanted special windows for this special space," McManus says. "The frames are contemporary, but we designed an intricate Spanish-style pattern

based on historic designs and added leaded glass with a little bit of waviness."

The timeless theme starts at the front gates: Large and wooden and painted a green-thumb hue of celadon, they lead to the first "room" of the house, a lushly landscaped courtyard centered around a rectangular lily pond.

"Just through the gates, the sight lines lead all the way back to the golf course," Shamamian says. "Stephen designed the lily pond so it forces you to stop and look at the view before making a move." That space leads to a forecourt that features a towering stucco chimney and a pointed-arch fireplace. An antique medallion hints at a rich history. "It's a functional fireplace," McManus says. "There's a lot of soot on the back wall—you can see that the owners use it a lot."

The interior walls of the house are sheathed in stucco for a clean, contemporary/traditional look and feel. "In typical Spanish architecture," Shamamian says, "there's not much detail on the walls. So we used the ceilings to bring in geometry and structure."

The dining room, which has paneling on the walls as well as the ceiling, is a notable exception. "Michael Smith and the owners had a series of six full-length 17th-century Spanish portraits that they wanted to



incorporate," Shamamian says. "Instead of framing them, we integrated them into the architecture of the walls. The paneling acts as frames."

In keeping with the theme, its coffered ceiling features painted panels.

Antique furnishings and fixtures, including marble and stone fireplaces, create a comfortable atmosphere and form a perfect setting for the new-old elements that Ferguson & Shamamian designed.

The central stairway, a cantilevered concoction that is made of Grand Tortoise Limestone imported from China, rises amid walls clad in hand-painted vintage tiles. Its wrought-iron balustrades, inspired by historic examples, delicately attach to the sides of the risers instead of the top of the treads. "The design lightens the look and adds width to the stair," Shamamian says.

In the living room, built-in bookshelves are framed by a Spanish-style arch that divides the spaces into a pair of parlors. Their interiors are decorated with wallpaper, a 19th-century technique that complements the wooden air-return grilles that Ferguson & Shamamian designed.

During the course of the project, the design, like a house living through the ages, evolved. "Each room," Shamamian says, "has its own characteristics and idiosyncratic details. We created pockets of places to go."



BELOW Wooden beams along the roof line of the master suite create a spacious feeling.

BOTTOM A coffered ceiling and paneled walls that house the owners' Spanish portrait paintings define the dining room.



KEY SUPPLIERS

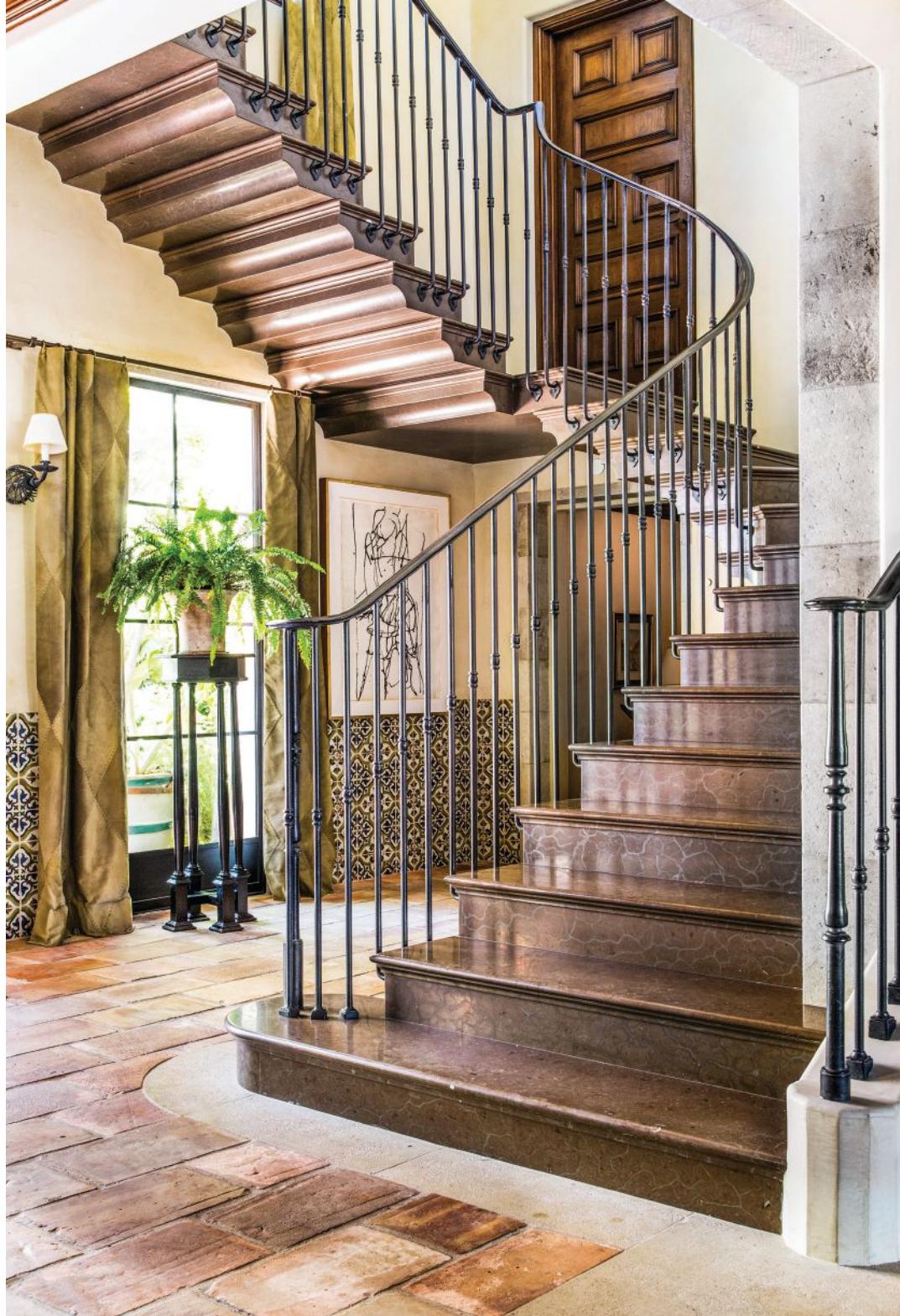
ARCHITECTURAL DESIGNER
Ferguson & Shamamian

ARCHITECT OF RECORD
Michael Kovac,
Kovac Design Studio

INTERIOR DESIGNER
Michael S. Smith

LANDSCAPE DESIGNER
Stephen Block, Inner Gardens





CENTER In the library's alcove, windows in a diamond-glass pattern bring in sunlight and a touch of the old world.

LEFT Inspired by Palladio's Basilica in Vicenza, the front facade features a single story portico with a cut-stone arcade and balustrade terrace above.

ABOVE The cantilevered central staircase, made of Grand Tortoise Limestone from China, features a custom bannister that is based on historic styles. The walls are decorated with hand-painted vintage tiles.

FREE INFORMATION GUIDE

Visit traditionalbuilding.hotims.com for FREE information on traditional buildings and products provided by the companies below.

Historical Products Showcase

Architectural Grille.....	61
800-387-6267 www.archgrille.com	
Aztec Stone Empire.....	7, 61
770-368-9337 www.aztecstoneempire.com	
Chadsworth Columns.....	11
910-763-7600 www.columns.com	
Driwood Moulding Company	25
888-245-9663 www.driwood.com	
Eustis Chair.....	29
978-827-3103 www.eustischair.com	
Mid-Atlantic Steel Fabrication	19
717-687-7313 www.MASteelFab.com	
Old World Stone Ltd.	11
800-281-9615 www.oldworldstone.com	
Pacific Register Company	13
805-487-7500 www.pacificregisterco.com	
Vintage Homes and Millwork	6
717-687-0292 www.vintagehomesandmillwork.com	

Art Glass

Hyland Studio, The.....	62
408-748-1806 www.hylandstudio.com	
Rambusch Decorating Co.....	1, 62
201-333-2525 www.rambusch.com	
Rohlf's Stained & Leaded Glass Studio	57
914-699-4848 www.rohlfstudio.com	

Ecclesiastical Specialties

Baker Liturgical Art, LLC	60
860-621-7471 www.bakerliturgicalart.com	
Brosamer's Bells.....	59
517-592-9030 www.brosamersbells.com	
John Tiedemann, Inc.	3, 65
877-600-2666 www.johntiedemann.com	
Kreilick Conservation LLC.....	59
215-572-6616 www.kreilickconservation.com	
R. Alden Marshall & Associates LLC	19
717-805-3114 www.raldenmarshall.com	
Rambusch Decorating Co.....	1, 60
201-333-2525 www.rambusch.com	
TOI Inc.	59
708-445-7200 www.toirestores.com	

Windows, Doors & Hardware

Allied Window, Inc.	25
800-445-5411 www.alliedwindow.com	
Architectural Resource Center	63
800-370-8808 www.brasswindowhardware.com	
E.R. Butler & Co.	64, Inside Back Cover
212-925-3565 www.erbutler.com	

Gaby's Shoppe	64
800-299-4229 www.gabys.com	
Historic Doors.....	31
610-756-6187 www.historicdoors.com	
Indow	29
503-284-2260 www.indowwindows.com	
Innerglass Window Systems	64
800-743-6207 www.stormwindows.com	
Parrett Windows & Doors	5, 64
800-541-9527 www.parrettwindows.com	
Phelps Company.....	19
603-336-6213 www.phelpscompany.com	
Vintage Doors.....	25
800-787-2001 www.vintagedoors.com	
Von Morris by Eric Morris & Company	27
856-997-0222 www.ericmorrisandco.com	

Decorative Painting, Murals & Mosaics

Conrad Schmitt Studios, Inc.....	Inside Front Cover
800-969-3033 www.conradschmitt.com	
EverGreene Architectural Arts, Inc.....	31
212-244-2800 www.evergreene.com	
John Tiedemann, Inc.	3, 65
877-600-2666 www.johntiedemann.com	
John Canning Conservation & Painting Studios.....	17
203-272-9868 www.JohnCanningCo.com	
Swiatek Studios	65
716-597-6683 www.swiatekstudios.com	

Interior Lighting

Deep Landing Workshop	72
877-778-4042 www.deeplandingworkshop.com	
Grand Light	72
800-922-1469 www.grandlight.com	
Heritage Metalworks	13
610-518-3999 www.heritage-metalworks.com	
Herwig Lighting	71
800-643-9523 www.herwig.com	
House of Antique Hardware	29
888-223-2545 www.houseofantiquehardware.com	
Lantern Masters, Inc.	67
818-706-1990 www.lanternmasters.com	
Manning Lighting, Inc.	71
920-458-2184 www.manningltg.com	
Period Lighting Fixtures, Inc.	72
800-828-6990 www.periodlighting.com	
Rambusch Lighting Co.	69
201-333-2525 www.rambusch.com	
St. Louis Antique Lighting Co.	2, 71
314-863-1414 www.slalco.com	
Steven Handelman Studios	72
805-962-5119 www.stevenhandelmanstudios.com	
Vintage Hardware & Lighting.....	57
360-379-9030 www.vintagehardware.com	

Forged & Wrought Metalwork & Metal Castings

Historical Arts & Casting, Inc.....	73
800-225-1414 www.historicalarts.com	
King Architectural Metals	73, Back Cover
800-542-2379 www.kingmetals.com	
Wiemann Metalcraft	13
918-592-1700 www.wmcraft.com	

Steeples, Domes & Cupolas

NIKO Contracting Co., Inc.	74
412-687-1517 www.nikocontracting.com	

Cast & Carved Stone

Trow & Holden	75
800-451-4349 www.trowandholden.com	

Specialty Brick & Mortar

Abatron, Inc.....	6
800-445-1754 www.abatron.com	
Gavin Historical Bricks, Inc.	76
319-354-5251 www.historicalbricks.com	
Weathercap, Inc.	76
985-649-4000 www.weathercap.net	

Wood Carving

Klitsas, Dimitrios - Fine Wood Sculptor	77
413-566-5301 www.klitsas.com	



OLD HOUSE JOURNAL
ARTS & CRAFTS HOMES
NEW OLD HOUSE
DESIGN CENTER SOURCEBOOK
TRADITIONAL BUILDING
OLDHOUSEONLINE.COM

LOG HOME LIVING
TIMBER HOME LIVING
COZY CABINS & COTTAGES
DREAM HOME SHOWCASE
BEST LOG & TIMBER HOME OF THE YEAR
BEST LOG & TIMBER FLOOR PLANS
LOG & TIMBER HOME PLANNER
CABINLIFE.COM

LOGHOME.COM

ADVERTISING INQUIRIES

ASSOCIATE PUBLISHER

Jennifer Baldwin

jenbaldwin1@msn.com

718-619-7645

ROHLF'S STAINED & LEADED GLASS STUDIO, INC.

BASILICA OF ST. PATRICK'S
OLD CATHEDRAL
NYC

HISTORIC RESTORATIONS



America's Foremost
Stained Glass Conservators
& Creators of the Finest
Stained Glass since 1920

ROHLF'S
A TRADITION LIKE
NO OTHER

*A Family Treasure
Spanning 4 Generations*

ROHLF'S STAINED &
LEADED GLASS STUDIO, INC.

783 South Third Ave
Mount Vernon, NY 10550
TEL: 800-969-4106 • (914) 699-4848
FAX 914-699-7091
EMAIL: ROHFL@AOL.COM
WEBSITE: ROHLSSTUDIO.COM



All of our stained glass and frame systems are vented to meet today's
preservation guidelines, along with wood replications.



ARTISTIC CREATIONS
TO MEET ANY
LITURGICAL STYLE

1 of 12 Windows

2 of 42 Windows



St. Mary of the Assumption
Hockessin, DE



St. Edward the
Confessor Church
Syosset, NY

Vintage Hardware & Lighting

2000 West Sims Way, Port Townsend
WA., 98368 360-379-9030
www.vintagehardware.com



2019 PALLADIO AWARDS CALL FOR ENTRIES



The Palladio Awards program is produced by *Clem Labine's Traditional Building* and *Clem Labine's Period Homes*. Presented by The Traditional Building Conference, the award is named in honor of Andrea Palladio, the Renaissance architect who created modern architecture for his time while drawing on past models for inspiration.



EXCELLENCE IN TRADITIONAL DESIGN

Honoring outstanding achievement in traditional design, The Palladio Awards program recognizes both individual designers and design teams whose work enhances the beauty and humane qualities of the built environment, through creative interpretation or adaptation of design principles, developed through 2,500 years of the Western architectural tradition.

The Palladio Awards are the first and only national awards program for residential and commercial/institutional projects which demonstrate excellence in traditional design.

SUBMISSION DEADLINE: JANUARY 11, 2019

PROJECTS MUST HAVE BEEN COMPLETED BETWEEN NOVEMBER 2013 AND NOVEMBER 2018.

AWARDS WILL BE CONSIDERED IN THE FOLLOWING CATEGORIES

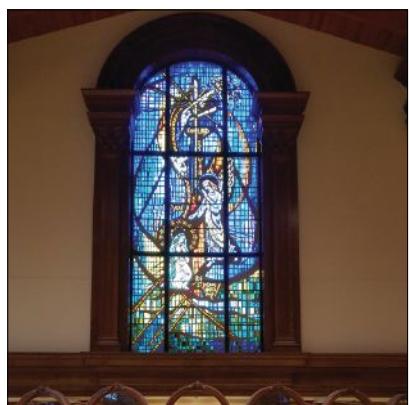
COMMERCIAL, INSTITUTIONAL & PUBLIC ARCHITECTURE:

- Restoration & Renovation
- Adaptive Reuse and/or Sympathetic Additions
- New Design & Construction – less than 30,000 sq.ft.
- New Design & Construction – more than 30,000 sq.ft.
- Public Spaces: Parks, Plazas, Streetscapes, Gardens

RESIDENTIAL ARCHITECTURE:

- Restoration & Renovation
- Adaptive Reuse and/or Sympathetic Additions
- New Design & Construction – less than 5,000 sq.ft.
- New Design & Construction – more than 5,000 sq.ft.
- Exterior Spaces: Gardens & Landscapes
- Residential Multi-Unit

For more information, or to submit your entry, go to www.palladioawards.com

**BAKER LITURGICAL ART, LLC**

860-621-7471; Fax: 860-621-7607
www.bakerliturgicalart.com

Plantsville, CT 06479

Supplier of liturgical furnishings & art: complete range of restoration services, design to final decoration; baptismal fonts, mural restoration, statues, tile & wood flooring, custom doors & millwork.

SEE OUR AD ON PAGE 60

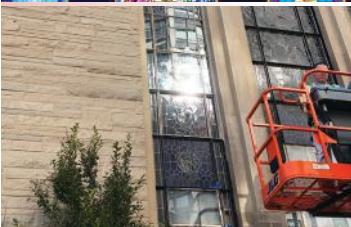
**BROSAMER'S BELLS**

517-592-9030; Fax: 517-592-4511
www.brosamersbells.com

Brooklyn, MI 49230

Supplier of pre-owned bells: more than 40,000 lbs. in stock; restoration of cast-bronze bells; yard, fire engine, railroad, church & tower bells; many styles; all sizes.

SEE OUR AD ON PAGE 59

**Historic Restoration & Preservation**

Homes • Theaters • Houses of Worship
 Painting, Murals & Decorative Plasters
 Keim Applicators • Historic Wallcoverings
 Iconography & Art Glass Restoration



EMAIL: gdulock@toirestores.com
 PHONE: 708-445-7200
 MOBILE: 708-203-5797
www.toirestores.com

**HISTORIC PLASTER CONSERVATION SERVICES LTD.**

888-624-2854; Fax: 905-885-8330
www.historicplaster.com

Port Hope, ON L1A 11M7 Canada

Supplier of conservation services, products & tools for treatment of fragile plaster in historic buildings: primary consulting services; plaster condition assessment & treatment program design.

**JOHN CANNING CONSERVATION & PAINTING STUDIOS**

203-272-9868; Fax: 203-272-9879
www.JohnCanningCo.com

Cheshire, CT 06410

Restorer, conservator & designer of decorative finishes, ornamental plaster & wood; historic paint analysis; plaster consolidation & stabilization; decorative paint, murals, interior & exterior gilding, wood graining, metal & stone cleaning.

SEE OUR AD ON PAGE 17

Brosamer's Bells, Inc.
 THE WORLD'S LARGEST DEALER OF
 PRE-OWNED BRONZE & CAST IRON BELLS

We are the *Affordable* source for *Church Bells*. In addition to church and tower bells, we also carry steam locomotive and fire bells, and yard bells in many shapes and sizes.

www.brosamersbells.com
 212 Irwin St., Brooklyn, Michigan 49230
Phone: 517-592-9030 • Fax: 517-592-4511

**JOHN TIEDEMANN, INC.**

877-600-2666; Fax: 201-991-3419
www.johntiedemann.com

North Arlington, NJ 07031

Restorer of interior elements: interior painting & design, liturgical renderings, decorative granite flooring, faux finishes, murals & frescoes, gilding, art glass, fine art, paint & plaster analysis, historic analysis & testing.

SEE OUR AD ON PAGE 3, 65

**KREILICK CONSERVATION LLC.**

215-572-6616
www.kreilickconservation.com

Oreland, PA 19075

Founded in 1996, provides laboratory and field analysis of materials, condition assessments, emergency response and stabilization, treatment, documentation, and maintenance of metallic and masonry architectural elements, monuments, sculpture, and objects.

SEE OUR AD ON PAGE 59

© Hallinan/Mason Photography, LLC

Bronze Canopy Restoration
 Cooper-Hewitt, Smithsonian Design Museum
 completed 2017

Kreilick Conservation, LLC
 Architecture • Sculpture • Objects
skreilick@kreilickconservation.com
www.kreilickconservation.com

TraditionalBuilding.com | 59

ECCLESIASTICAL SPECIALTIES

Liturgical Design - Construction Management - Painting & Decoration - Marble Flooring

RENOVATION AND RESTORATION PROJECT ANNUNCIATION CATHOLIC CHURCH

ALTAMONTE SPRINGS - FLORIDA

Very Reverend Stephen Parkes



Baker Liturgical Art, LLC
Church Restoration • Church Renovation

Brian T. Baker
President/Liturgical Designer

1210 Meriden-Waterbury Tpke, Plantsville, CT 06479 • P: 860-621-7471 • F: 860-621-7607 • info@bakerart.net
9427 South Ocean Drive • Jensen Beach, FL 34957 • P: 860-919-2119 • www.bakerliturgicalart.com

LED Lighting Design - Custom Millwork - Stained Glass - Custom Statues - Marble Works

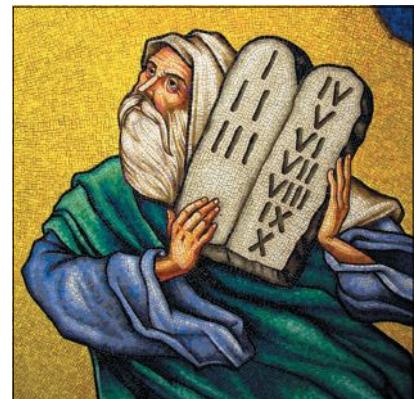


R. ALDEN MARSHALL & ASSOCIATES LLC

717-805-3114
www.raldenmarshall.com
Galveston, TX 77551

A material science laboratory & preservation studio for the conservation of art & architecture including monuments, sculptures, paintings & murals; much more. Projects include national historic sites as well as ecclesiastical commissions.

[SEE OUR AD ON PAGE 19](#)



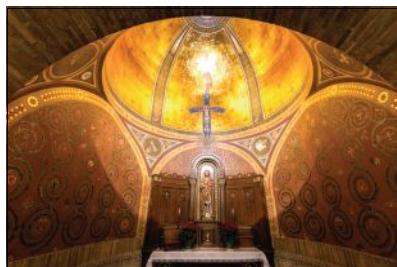
RAMBUSCH DECORATING CO.

201-333-2525; Fax: 201-433-3355
www.rambusch.com

Jersey City, NJ 07304

Designer & fabricator of public & ecclesiastical art & stained glass: altars, ambos, arks, crosses & more; decorative painting; murals & mosaics; lighting; commercial environments; since 1898.

[SEE OUR AD ON PAGES 1, 62](#)



SWIATEK STUDIOS

716-597-6683; Fax: No fax
www.swiatekstudios.com
Buffalo, NY 14210

Restoration services: for churches & historical landmarks; decorative painting, statue restoration, brass plating, stained-glass restoration; murals, stenciling, faux finishes, gilding, marbleizing, carpentry, trompe l'oeil & decorative plaster.

[SEE OUR AD ON PAGE 65](#)



TOI INC.

708-445-7200; Fax: 708-445-7234
www.toirestores.com
Oak Park, IL 60302

Historic restoration, conservation and preservation. Decorative finishes, acoustic and historic wallcoverings, murals, gold leaf, wood graining faux marble.

[SEE OUR AD ON PAGE 59](#)

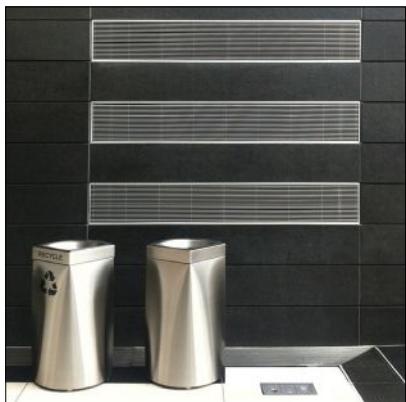
Visit
TraditionalBuilding.com
today for web exclusives
like blogs by industry
leaders & experts.

RAMBUSCH
L E D

Liturgical Lighting
Decorative • Custom
Engineered • Retrofits

See our ad, page 69
info@rambusch.com
www.rambusch.com

HISTORICAL PRODUCTS SHOWCASE


ARCHITECTURAL GRILLE

800-387-6267; Fax: 718-832-1390
www.archgrille.com

Brooklyn, NY 11215

Manufacturer of custom grilles; perforated & linear bar grilles; radiator covers; aluminum, brass, steel & stainless steel; variety of finishes; stock sizes; waterjet & laser cutting.

[SEE OUR AD ON PAGE 61](#)


CHADSWORTH COLUMNS

910-763-7600; Fax: 910-763-3191

www.columns.com

Wilmington, NC 28401

Manufacturer of authentically correct architectural columns: complete line of columns, piers, pilasters & posts for interior & exterior use; variety of sizes, styles & materials, including wood; more than 20 years.

[SEE OUR AD ON PAGE 11](#)


DRIWOOD MOULDING COMPANY

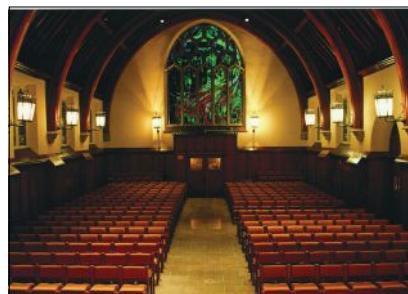
888-245-9663; Fax: 843-669-4874

www.driwood.com

Florence, SC 29503

Supplier of molding: Stock & custom moldings for residential & commercial projects; embossed moldings, custom millwork, mantels, entrances, cabinet & panel work, custom doors.

[SEE OUR AD ON PAGE 25](#)


EUSTIS CHAIR

978-827-3103; Fax: 978-827-3040

www.eustischair.com

Brighton, MA 02135

Manufacturer of hardwood chairs: for libraries, dining halls, chapels & function rooms; traditional & contemporary styles; stackable.

[SEE OUR AD ON PAGE 29](#)

To see larger photos and informational captions, visit traditionalbuilding.com/page/the-magazine

Scroll down and click on the Buying Guides link


MID-ATLANTIC STEEL FABRICATION

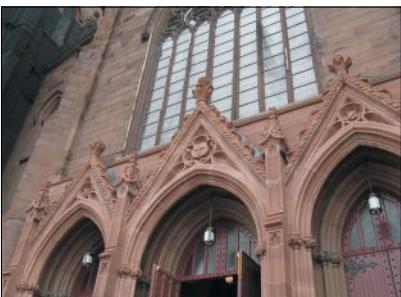
717-687-7313

www.MASteelFab.com

Ronks, PA 17572

Provides metal fabrication services using state-of-the-art equipment for laser cutting, metal fabrication, aluminum fabrication, CNC forming services, welding, countersinking, 3D CAD Design, powder coating & decorative metal fabrication.

[SEE OUR AD ON PAGE 19](#)


OLD WORLD STONE LTD.

800-281-9615; 905-332-5547; F

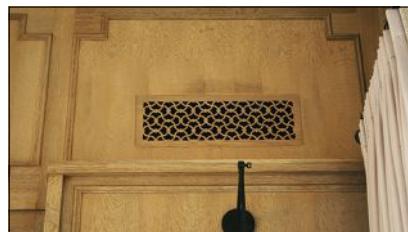
ax: 905-332-6068

www.oldworldstone.com

Burlington, ON L7L 4Y1 Canada

Supplier of dimensional-cut limestone & sandstone: columns, sculpture, mantels, architectural ornament, signage & garden ornament for new & restoration projects.

[SEE OUR AD ON PAGE 11](#)


PACIFIC REGISTER COMPANY

805-487-7500

www.pacificregisterco.com

Oxnard, CA 93033

Manufacturer of registers: metal, wood & stone; many historic styles; accessories.

[SEE OUR AD ON PAGE 13](#)



[SEE OUR AD ON PAGE 7](#)



WHEN CONTACTING COMPANIES YOU'VE SEEN IN THIS ISSUE, PLEASE TELL THEM YOU SAW THEM IN TRADITIONAL BUILDING MAGAZINE.

ARCHITECTURAL GRILLE
CUSTOM DESIGNED, FABRICATED AND FINISHED



TO ORDER:
 1.800.387.6267
 P: 718.832.1200
 F: 718.832.1390
ARCHGRILLE.COM

SPACKLE IN J-FRAME BAR GRILLE

INDUSTRY LEADER IN ARCHITECTURAL GRILLES

ART GLASS

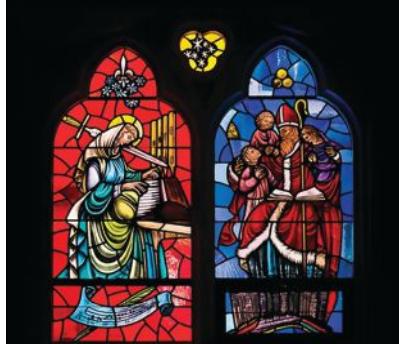

BOVARD STUDIO, INC.

641-472-2824; Fax: 641-472-0974

www.bovardstudio.com

Fairfield, IA 52556

Restorer, designer & fabricator of stained-glass windows: faceted glass, mosaics & hand-crafted wood, aluminum & steel frames; protective glazing systems vented for stained-glass conservation, U.S. patent #7607267; replicates lost stained-glass windows.


HUNT STAINED GLASS STUDIOS

412-391-1796

www.huntstainedglass.com

Pittsburgh, PA 15219

Stained-glass studio: custom-designed works in stained, leaded, sand-etched, beveled & faceted glass; liturgical, commercial & residential projects; repair & restoration; sculpture.


HYLAND STUDIO, THE

408-748-1806; Fax: 408-748-0160

www.hylandstudio.com

Santa Clara, CA 95050

Art glass studio: restoration of stained & leaded glass; design & fabrication of new custom stained glass, leaded glass & etched glass creations; exterior protection & conservation of stained glass; all architectural styles.

SEE OUR AD ON PAGE 62


JOHN CANNING CONSERVATION & PAINTING STUDIOS

203-272-9868; Fax: 203-272-9879

www.JohnCanningCo.com

Cheshire, CT 06410

Restorer, conservator & designer of decorative finishes, ornamental plaster & wood: historic paint analysis; plaster consolidation & stabilization; decorative paint, murals, interior & exterior gilding, wood graining, metal & stone cleaning.

SEE OUR AD ON PAGE 17


THE HYLAND STUDIO
CRAFTSMEN IN GLASS est. 1980
Professional **STAINED GLASS RESTORATION**


Please see our work at WWW.HYLANDSTUDIO.COM

Contact us at 408-748-1806 / STUDIO@HYLANDSTUDIO.COM

650 REED ST. SANTA CLARA, CA 95050


LEHMANN GLASS STUDIO

510-465-7158; Fax: Same as phone

www.lehmannglass.com

Oakland, CA 94607

Custom manufacturer of wheel-cut art-glass panels: etched & beveled art glass; door & lighting-fixture glass; historic & modern designs; historical reproductions.


RAMBUSCH DECORATING CO.

201-333-2525; Fax: 201-433-3355

www.rambusch.com

Jersey City, NJ 07304

Designer & fabricator of public & ecclesiastical art & stained glass: altars, ambos, arks, crosses & more; decorative painting; murals & mosaics; lighting; commercial environments; since 1898.

SEE OUR AD ON PAGES 1, 62


ROHLF'S STAINED & LEADED GLASS STUDIO

914-699-4848; Fax: 914-699-7091

www.rohlfstudio.com

Mount Vernon, NY 10550

Designer, fabricator & installer of new stained & leaded glass: restoration & replication; protective glazing; beveled, carved & fused/slumped glass; steel casement retrofitting; mosaics; established in 1920.

SEE OUR AD ON PAGE 57


SWIATEK STUDIOS

716-597-6683; Fax: No fax

www.swiatekstudios.com

Buffalo, NY 14210

Restoration services: for churches & historical landmarks; decorative painting, statue restoration, brass plating, stained-glass restoration; murals, stenciling, faux finishes, gilding, marbleizing, carpentry, trompe l'oeil & decorative plaster.

SEE OUR AD ON PAGE 65

Lighting, furnishings, stained glass, mosaic and restoration.

RAMBUSCH 1898

info@rambusch.com See our ad on page 1 www.rambusch.com

WINDOWS, DOORS & HARDWARE


ALLIED WINDOW, INC.

800-445-5411; Fax: 513-559-1883

www.alliedwindow.com

Cincinnati, OH 45241

Manufacturer & installer of Invisible Storm Windows®: custom colors, shapes & glazing materials; aluminum; sound-reduction protection from UV & vandalism; interior & exterior; commercial & residential applications.

SEE OUR AD ON PAGE 25


ARCHITECTURAL RESOURCE CENTER

800-370-0808; Fax: 603-942-7465

www.brasswindowhardware.com

Northwood, NH 03261

Supplier of historically styled hardware: sash pulleys, lifts & locks, sash chain & rope; weather stripping; patented sash weights.

SEE OUR AD ON PAGE 63


E.R. BUTLER & CO.

212-925-3565; Fax: 212-925-3305

www.erbutler.com

New York, NY 10012

Manufacturer of historically accurate, premium-quality hardware for doors, windows & furniture: brass, bronze, nickel, silver & wrought iron; complete design selections of Early American period hardware; many finishes.

SEE OUR AD ON PAGES 64, INSIDE BACK COVER



TRADITIONAL BRASS HARDWARE

"A Veteran Owned Business"

Pulleys
CUSTOM CUT
Square & Round
Phillips & Slotted Screws

Chains



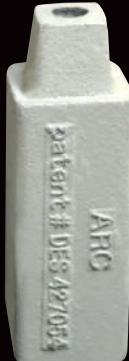
Locks



Lifts



Stackable Weights
Iron & Lead
Square or Round



Customer Service
1-800-370-8808

www.aresource.com


GABY'S SHOPPE

800-299-4229; Fax: 214-748-7701

www.gabys.com

Dallas, TX 75207

Manufacturer of handcrafted decorative iron drapery hardware: for curved & angled bay windows & arches; 30 standard finishes; more than 100 finial options.

SEE OUR AD ON PAGE 64


HISTORIC DOORS

610-756-6187; Fax: 610-756-6171

www.historicdoors.com

Kempton, PA 19529

Custom fabricator of wood windows & doors: casing; circular & crown moldings; complete entryways; wood storefronts; restoration & period-style construction.

SEE OUR AD ON PAGE 31


HOUSE OF ANTIQUE HARDWARE

888-223-2545; Fax: 503-233-1312

www.houseofantiquehardware.com

Portland, OR 97232

Manufacturer & supplier of vintage reproduction door, window, shutter, cabinet & furniture hardware & accessories: Federal, Victorian, Colonial Revival, Craftsman & Deco styles; lighting fixtures, push-button switches & plates; bathroom accessories; registers & grilles.

SEE OUR AD ON PAGE 29


INDOW

503-284-2260; Fax: 503-284-2261

www.indowwindows.com

Portland, OR 97227

Manufacturer of handcrafted acrylic interior storms: edged in Compression Tube that press into place without a track or magnetic system to preserve historic windows while creating comfort, energy efficiency, savings & noise reduction; laser-measured for out-of-square openings; for residential & commercial projects.

SEE OUR AD ON PAGE 29


INNERGLASS WINDOW SYSTEMS

800-743-6207; Fax: 860-651-4789

www.stormwindows.com

Simsbury, CT 06070

Manufacturer of custom glass interior storm windows for energy conservation & soundproofing: out performs almost any replacement; automatically conforms to the opening, compensating for out-of-square conditions; no sub-frame needed; all glazing options available; easy do-it-yourself installation.

SEE OUR AD ON PAGE 64


PARRETT WINDOWS & DOORS

800-541-9527; Fax: 877-238-2452

www.parrettwindows.com

Dorchester, WI 54425

Manufacturer of custom, quality wood & aluminum-clad windows & doors: vast array of options, numerous wood species & complete finishing capabilities; historical replications; screen doors, casings & moldings.

SEE OUR AD ON PAGE 5, 64

WINDOWS, DOORS & HARDWARE

Gaby's Shoppe *Manufacturer of Fine Wrought Iron*

Our extensive collection ranges from fine hand-finished wrought iron to richly grained stainless steel. Because we manufacture our products right here in the U.S., we are able to offer custom items such as curved bay windows or brackets sized specifically for your application.

View the complete Gaby's Shoppe catalog online: www.gabys.com
1311 Dragon St. • Dallas, Texas 75207 • 1-800-299-4229



PHELPS COMPANY
603-336-6213; Fax: 603-336-6085
www.phelpscompany.com
Hinsdale, NH 03451

Manufacturer of traditional hot-forged solid-brass window hardware: sash pulleys, weights, chains, lifts & locks; stop-bead adjusters, spring bolts, window ventilation locks, push-out casement hardware, storm/screen-door latch sets & more.

SEE OUR AD ON PAGE 19



VINTAGE DOORS
800-787-2001; Fax: 315-324-6531
www.vintagedoors.com
Hammond, NY 13646

Manufacturer of custom exterior & interior wood doors: door hardware, screen doors & storm doors; traditional, Craftsman & Victorian Styles; solid wood & glass panels available.

SEE OUR AD ON PAGE 25



VINTAGE HOMES AND MILLWORK

717-687-0292; Fax: 717-687-3510
www.vintagehomesandmillwork.com
Paradise, PA 17562

Offers custom-milled front doors, interior doors, garage doors, barn doors, and custom hardware. Specialties include custom trim work, custom grid doors, true or simulated divide light doors, and engineered doors. Made in the USA in Lancaster, PA.

SEE OUR AD ON PAGE 9

Infrared Proof: Our Storm Windows Save Energy!

Innerglass
Window Systems, LLC
The Compression-Fit Advantage

Innerglass Interior Storm Windows keep the building **warm** in the winter and cooler in the summer without sacrificing the charm and beauty of **existing** historic windows.

Noise reduction better than replacement windows.

Compression-fits to ANY window, no matter how crooked!

Lyman Estate

Innerglass Window Systems, LLC
15 Herman Drive • Simsbury, CT
1-800-743-6207 • www.stormwindows.com

E. R. BUTLER & CO.
MANUFACTURERS

See Our Ad
On the Inside Back Cover

WWW.ERBUTLER.COM



Parrett
Windows & Doors

Durability, True Quality, & Simply Beautiful - Experience the Difference!
See our Ad on Page 4

1-800-541-9527 Parrettwindows.com

DECORATIVE PAINTING, MURALS & MOSAICS



**VON MORRIS
BY ERIC MORRIS
& COMPANY**
856-997-0222;
Fax: 856-294-5116

www.ericmorrisandco.com
**Pennsauken,
NJ 08109**

Fabricator of architectural hardware: knobs, levers, locks, hinges & cabinet hardware; 30 different finishes.

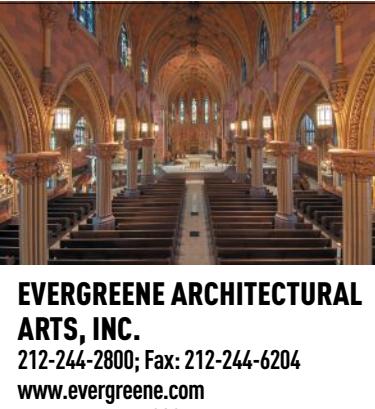
SEE OUR AD ON PAGE 27



CONRAD SCHMITT STUDIOS
800-969-3033; Fax: 262-786-9036
www.conradsschmitt.com
New Berlin, WI 53151

Creator, conservator & restorer of decorative painting: stained & art glass; ornamental plaster work & ceilings; gilding; murals, mosaics & statuary; for public & religious buildings; since 1889.

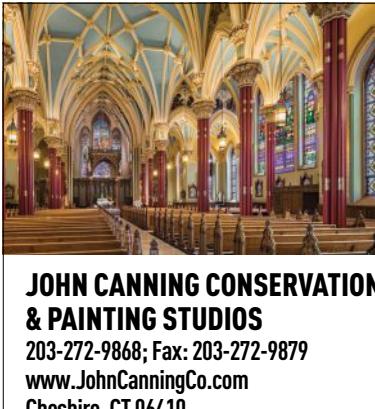
SEE OUR AD ON INSIDE FRONT COVER



EVERGREENE ARCHITECTURAL ARTS, INC.
212-244-2800; Fax: 212-244-6204
www.evergreene.com
Brooklyn, NY 11232

Decorative-arts studio: murals, decorative painting, gilding, plaster, wood, metal, stone & mosaics; new design, conservation & restoration; ecclesiastical, institutional, public & commercial projects; offices in NYC & Chicago.

SEE OUR AD ON PAGE 31



JOHN CANNING CONSERVATION & PAINTING STUDIOS
203-272-9868; Fax: 203-272-9879
www.JohnCanningCo.com
Cheshire, CT 06410

Restorer, conservator & designer of decorative finishes, ornamental plaster & wood: historic paint analysis; plaster consolidation & stabilization; decorative paint, murals, interior & exterior gilding, wood graining, metal & stone cleaning.

SEE OUR AD ON PAGE 17



JOHN TIEDEMANN, INC.
877-600-2666; Fax: 201-991-3419
www.johntiedemann.com
North Arlington, NJ 07031

Restorer of interior elements: interior painting & design, liturgical renderings, decorative granite flooring, faux finishes, murals & frescoes, gilding, art glass, fine art, paint & plaster analysis, historic analysis & testing.

SEE OUR AD ON PAGE 3, 65



R. ALDEN MARSHALL & ASSOCIATES LLC
717-805-3114
www.raldenmarshall.com
Galveston, TX 77551

A material science laboratory & preservation studio for the conservation of art & architecture including monuments, sculptures, paintings & murals; much more. Projects include national historic sites as well as ecclesiastical commissions.

SEE OUR AD ON PAGE 19



SWIATEK STUDIOS
Architectural Restoration & Artistry

Quality • Craftsmanship • Integrity

We provide over forty years of experience in the restoration and investigation of original religious decorative schemes and custom finishes.

OUR SERVICES

Murals
Fine Art Conservation
Stained Glass Restoration
Stenciling
Gilding
Decorative Painting
...and more!

CONTACT US

9670 Main Street
Clarence, NY 14301
716-597-6683
swiatekstudios.com
Visit us on Facebook!
facebook.com/swiatekstudios




RAMBUSCH DECORATING CO.
201-333-2525; Fax: 201-433-3355
www.rambusch.com
Jersey City, NJ 07304

Designer & fabricator of public & ecclesiastical art & stained glass: altars, ambos, arks, crosses & more; decorative painting; murals & mosaics; lighting; commercial environments; since 1898.

SEE OUR AD ON PAGES 1, 62



SWIATEK STUDIOS
716-597-6683; Fax: No fax
www.swiatekstudios.com
Buffalo, NY 14210

Restoration services: for churches & historical landmarks; decorative painting, statue restoration, brass plating, stained-glass restoration; murals, stenciling, faux finishes, gilding, marbleizing, carpentry, trompe l'oeil & decorative plaster.

SEE OUR AD ON PAGE 65



JOHN TIEDEMANN INCORPORATED

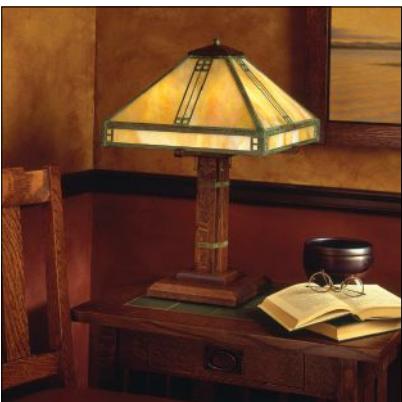
See our Ad on page 3

Church Restoration Specialists

www.JohnTiedemann.com

1-866-600-2666

INTERIOR LIGHTING


ARROYO CRAFTSMAN

888-227-7696; Fax: 626-960-9521
www.arroyo-craftsman.com

Baldwin Park, CA 91706

Manufacturer of interior & exterior lighting fixtures: solid-brass post- & column-mount, wall-mount & hanging garden lights; brass chandeliers, sconces, table lamps & flush ceiling mounts; Arts & Crafts style; stock & custom.


B & P LAMP SUPPLY, INC.

800-822-3450; Fax: 931-473-3014
www.bplampsupply.com

Mc Minnville, TN 37110

Wholesaler of traditional lighting parts for repair, restoration & fabrication of interior light fixtures; more than 7,500 parts ready to ship nationwide; sells to consumer under Antique Lamp Supply brand: since 1952.


BALL & BALL LIGHTING

610-363-7330; Fax: 610-363-7639
www.ballandball.com

Exton, PA 19341

Fabricator of historical lighting: chandeliers, sconces, pendants, lanterns & table lamps; Early American & Turn of the Century styles; antique & salvaged originals, new designs, custom work & reproductions; stair handrails; restoration services.


CRENSHAW LIGHTING

540-745-3900; Fax: 540-745-3911

www.crenshawlighting.com

Floyd, VA 24091

Designer and manufacturer of fine lighting since 1957: custom designs; historic restoration & replication; contemporary; residential; government; university; worship; theatre; museum. Interior & Exterior. Handmade in the USA


DEEP LANDING WORKSHOP

877-778-4042; Fax: 410-778-4070
www.deeplandingworkshop.com

Chestertown, MD 21620

Manufacturer of custom lighting fixtures: chandeliers, sconces, pendants & lanterns; new designs, historic reproductions & custom work; handcrafted in wood, tin, brass or copper; glass, mica or alabaster shades.

SEE OUR AD ON PAGE 72


GRAND LIGHT

800-922-1469; Fax: 203-828-6307
www.grandlight.com

Seymour, CT 06483

Restorer of historic lighting fixtures & manufacturer of custom lighting fixtures: metal fabrication, glass fabrication, metal finishing, polishing, painting, welding, abrasive blasting; historical replication & reproduction.

SEE OUR AD ON PAGE 72


HERWIG LIGHTING

800-643-9523; Fax: 479-968-6422
www.herwig.com

Russellville, AR 72811

Designer & manufacturer of handcrafted cast metal-work: period-design lanterns, street lighting, posts, custom outdoor lighting, street clocks, benches, bollards, custom plaques, signs & more; aluminum & bronze; since 1908.

SEE OUR AD ON PAGE 71


HISTORICAL ARTS & CASTING

800-225-1414; Fax: 801-280-2493

www.historicalarts.com

West Jordan, UT 84081

Designer & custom fabricator of ornamental metalwork: doors, windows, hardware, stairs, balustrades, registers, fences, lighting, gutters, columns, weathervanes, snow guards, cupolas, planters, fireplace tools & more; iron, bronze, aluminum & steel; restoration services.

SEE OUR AD ON PAGE 73


HOUSE OF ANTIQUE HARDWARE

888-223-2545; Fax: 503-233-1312
www.houseofantiquehardware.com

Portland, OR 97232

Manufacturer & supplier of vintage reproduction door, window, shutter, cabinet & furniture hardware & accessories: Federal, Victorian, Colonial Revival, Craftsman & Deco styles; lighting fixtures, push-button switches & plates; bathroom accessories; registers & grilles.

SEE OUR AD ON PAGE 29


LANTERN MASTERS, INC.

818-706-1990; Fax: 818-706-1988
www.lanternmasters.com

Westlake Village, CA 91362

Custom designer & manufacturer of lighting: interior chandeliers, pendants, ceiling flushes & sconces & exterior lanterns including wall, flush wall, pendant, post & pilaster; many architectural periods; historical reproductions.

SEE OUR AD ON PAGE 67


MANNING LIGHTING, INC.

920-458-2184; Fax: 920-458-2491
www.manningltg.com

Sheboygan, WI 53082

Supplier of contemporary & traditional lighting: custom church lighting; restoration of historical fixtures for courthouses & institutional buildings.

SEE OUR AD ON PAGE 71

To see larger photos and informational captions, visit traditionalbuilding.com/page/the-magazine

Scroll down and click on the Buying Guides link



Manufacturer of Fine Interior, Exterior & Custom Lighting

LANTERN MASTERS, INC.

A large, rectangular outdoor lantern with a black frame and glass panels hangs over a swimming pool. The lantern is suspended by a chain from a dark metal bracket. In the background, there is a stone building with a tiled roof and a wooden door, surrounded by trees and a clear blue sky.

Unique Details, Fine Craftsmanship and Expert Design Service

31328 Via Colinas, Suite 103 | Westlake Village, CA 91362 | 818.706.1990 | lanternmasters.com



For 30 years,

Partners for Sacred Places
has empowered congregations
to better serve their communities
and to restore and maintain their
historic structures.

**Partners is the only national,
nonsectarian, nonprofit
organization dedicated to the
sound stewardship and active
community use of America's older
religious properties.**

To learn more about what we do:
www.sacredplaces.org



AT THE INTERSECTION
OF HERITAGE, FAITH,
& COMMUNITY

Partners for Sacred Places

Crafting visual environments through lighting, furnishings, stained glass, mosaic and restoration.

CATHEDRAL OF ST. PETER, Scranton, PA

OUR LADY OF MT. CARMEL CATHOLIC CHURCH, Carmel, IN

ST. STEPHEN CATHOLIC CHURCH, New Orleans, LA

RAMBUSCH 1898

160 Cornelison Avenue | Jersey City, NJ 07304 | tel: 201.333.2525 | info@rambusch.com | www.rambusch.com



LEARN FROM THE PAST TO BUILD FOR THE FUTURE

NEW YORK CONTINUING EDUCATION COURSES:

STRIPPED: THE ART OF STYLIZING CLASSICISM IN A REDUCTIVE MANNER

Saturday, October 20th, 9:30 AM - 3:00 PM

Instructor: Mason Roberts

PICTORIAL SPACE, FORM, AND COLOR: COMPOSITION IN EUROPEAN PAINTINGS FROM THE 15TH TO 19TH CENTURIES

Saturday, October 27th, 10:00 AM - 4:00 PM

Instructor: James Reid

PROPORTIONAL PORTICOS

Saturday, November 10th, 9:30 AM - 4:30 PM

Instructor: Steve Bass

THE ARCHITECT'S LIBRARY: RENAISSANCE TREATISES ON ARCHITECTURE

Saturday, December 1st, 9:00 AM - 5:30 PM

Instructor: Dave Gobel

ARCHITECTURAL RENDERING IN WASH

3 Sessions: December 7th, 6:00 PM - 9:00 PM;

December 8th and 9th, 9:00 AM - 5:00 PM

Instructor: David Genther

classicist.org

**PERIOD LIGHTING FIXTURES**

800-828-6990; 413-664-7141;

Fax: 413-664-0312

www.periodlighting.com

Clarksburg, MA 01247

For over 40 years we have been producing Handmade 18th- and 19th century chandeliers, sconces, and lanterns. Aged tin, oxidized copper-, natural copper-, and pewter- finishes. Exterior and interior lanterns. Over 200 historically accurate models. Made in the USA. UL listed.

SEE OUR AD ON PAGE 72**RAMBUSCH LIGHTING CO.**

201-333-2525; Fax: 201-860-9999

www.rambusch.com

Jersey City, NJ 07304

Designer & fabricator of custom & engineered lighting for 100 years: for churches & public spaces; conservation & replication of lighting fixtures.

SEE OUR AD ON PAGE 69**SCOFIELD LIGHTING**

610-518-3999; Fax: 610-518-7264

www.scofieldlighting.com

Downington, PA 19335

This signature 19th century inspired collection by Heritage Metalworks provides over 120 original custom and reproduction designs in the finest handmade interior and exterior lighting. Artisans use traditional tools and proven techniques that show the mark of the human hand.

**ST. LOUIS ANTIQUE LIGHTING**

314-863-1414; Fax: 314-863-6702

www.slalco.com

Saint Louis, MO 63130

Manufacturer & supplier of architectural lighting: all styles; historical reproductions & custom lighting; restoration services; commercial & ecclesiastical projects.

SEE OUR AD ON PAGES 2, 71

To see larger photos and informational captions, visit traditionalbuilding.com/page/the-magazine

Scroll down and click on the Buying Guides link

LIGHTING HERWIG FIXTURES

SINCE 1908

DESIGNER & MANUFACTURERS OF FINE LIGHTING FIXTURES & ACCESSORIES



CAST ALUMINUM LIGHT FIXTURES, POSTS, BOLLARDS, BENCHES & STREET CLOCKS

MOUNTINGS: WALL, BRACKET, POST & PIER

HUNDREDS OF STANDARD DESIGNS & SIZES

HANDCRAFTED QUALITY

HERWIG LIGHTING

P.O. BOX 768

RUSSELLVILLE, AR 72811

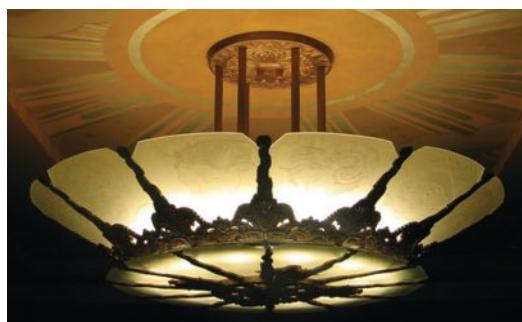
HERWIG@HERWIG.COM • HERWIG.COM
phone: 479-968-2621 fax: 479-968-6422

**HANDCRAFTED LIGHTING FOR SACRED SPACES.****Manning Lighting**

Made in USA since 1948

www.manningltg.com

©2018 Manning Lighting Sheboygan, WI USA



**St. Louis
Antique
Lighting Co.**

SEE OUR AD ON PAGE 2

If you'd like to order a

GIFT
subscription
for a colleague,
just call
800-548-0148

INTERIOR LIGHTING


STEVEN HANDELMAN STUDIOS

805-962-5119; Fax: 805-966-9529

www.stevenhandelmanstudios.com

Santa Barbara, CA 93103

Manufacturer of hand-forged traditional lighting, grilles & fireplace accessories: many types & styles of lighting & grilles; fireplace screens, grates & inserts; historic reproduction & restoration services.

SEE OUR AD ON PAGE 72


VINTAGE HARDWARE & LIGHTING

360-379-9030; Fax: 360-379-9029

www.vintagehardware.com

Port Townsend, WA 98368

Supplier of door hardware, window hardware: window locks & sash lifts; drapery hardware; bathroom accessories; reproduction lighting; weathervanes.

SEE OUR AD ON PAGE 57


WIEMANN METALCRAFT

918-592-1700; Fax: 918-592-2385

www.wmcraft.com

Tulsa, OK 74107

Designer, fabricator, finisher & installer of fine quality custom ornamental metalwork: railings, fences, gates, custom, hot-rolled steel doors & windows, lighting, grilles, bronze & aluminum entry doors; all cast- & wrought-metal alloys, finishes & architectural styles; since 1940.

SEE OUR AD ON PAGE 13


WORLD CLASS LIGHTING

727-524-7661; Fax: 727-524-7663

www.worldclasslighting.com

Clearwater, FL 33760

Manufacturer of chandeliers & wall sconces: crystal, alabaster, traditional, wrought-iron, neoclassical and custom made models for projects

Historic Lighting Restoration & Custom Lighting


GRAND LIGHT

American Artisans at Work
Preserving History

www.Grandlight.com

1-800-922-1469

Seymour, CT

*Unsurpassed
Quality &
Attention to
Detail.*



**STEVEN
HANDELMAN
STUDIOS
INC.**

805-965-5119
stevenhandelmanstudios.com



INSPIRED DESIGN TO TAKE YOUR BREATH AWAY

DEEP LANDING WORKSHOP

115 Deep Landing Rd
Chestertown, MD 21620

877-778-4042

410-778-4042

410-778-4070 fax

www.deeplandingworkshop.com

deeplandingworkshop@gmail.com



**BEAUTY. ELEGANCE.
SIMPLICITY.**



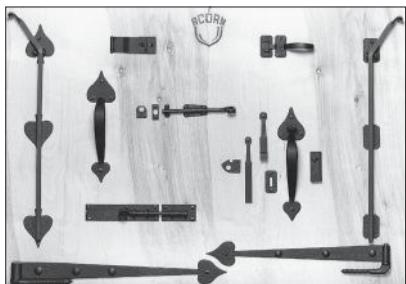
Grace your home with the timeless sophistication of 18th and Early 19th Century lighting. The country's largest collection of Early American designs, reproduced entirely by hand from original fixtures in museums such as *Historic Deerfield* and *Olde Sturbridge Village*. **PERIOD LIGHTING** chandeliers, sconces and lanterns will add a quiet beauty to your home and surroundings.



PERIOD LIGHTING FIXTURES INC.

ARTISANS SINCE 1974 PERIODLIGHTING.COM 800 828-6990
167 RIVER ROAD CLARKSBURG, MA 01247

FORGED & WROUGHT METALWORK & METAL CASTINGS


ACORN FORGED IRON

508-339-4500; Fax: 508-339-0104

www.acornmfg.com

Mansfield, MA 02048

Supplier of forged-iron & forged stainless-steel decorative hardware: cabinet, shutter, gate & interior & exterior door hardware; cast-iron registers & grilles; hand-forged bath accessories; hand-forged decorative-head nails.


FLAHERTY IRON WORKS INC.

703-971-7653; Fax: 703-971-8040

www.flahertyironworks.com

Alexandria, VA 22310

Custom fabricator of hand-forged metalwork: sculpture, gates, railings & furniture.


HERITAGE METALWORKS

610-518-3999; Fax: 610-518-7264

www.heritagemetalworks.com

Downingtown, PA 19335

Foundry, blacksmith shop and custom metal fabricator offering historically accurate and custom-designed lighting, architectural hardware, and designer-envisioned metalwork including interior and exterior gates & railings.

SEE OUR AD ON PAGE 13


HISTORICAL ARTS & CASTING

800-225-1414; Fax: 801-280-2493

www.historicalarts.com

West Jordan, UT 84081

Designer & custom fabricator of ornamental metalwork: doors, windows, hardware, stairs, balustrades, registers, fences, lighting, gutters, columns, weathervanes, snow guards, cupolas, planters, fireplace tools & more; iron, bronze, aluminum & steel; restoration services.

SEE OUR AD ON PAGE 73

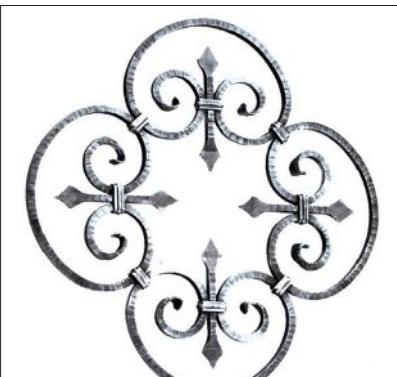

HMW FORGE

610-518-3999; Fax: 610-518-7264

www.hmwforge.com

Downingtown, PA 19335

This signature collection by Heritage Metalworks provides historically accurate hand-forged and custom-designed hardware in brass, bronze, copper, steel, true wrought iron for some of the most exclusive architects, designers, general contractors, galleries and museums in the country.


KING ARCHITECTURAL METALS

800-542-2379; Fax: 800-948-5558

www.kingmetals.com

Dallas, TX 75228

Wholesale supplier of ornamental & architectural metal components: staircases, handrails, gates, fences, furniture, mailboxes, lampposts, finials & fireplace screens; wrought iron & aluminum.

SEE OUR AD ON PAGES 73, BACK COVER


HISTORICAL ARTS & CASTING, INC.

Award-winning architectural and ornamental metalwork since 1973

www.historicalarts.com • 1(800) 225-1414


WIEMANN METALCRAFT

918-592-1700; Fax: 918-592-2385

www.wmcraft.com

Tulsa, OK 74107

Designer, fabricator, finisher & installer of fine quality custom ornamental metalwork: railings, fences, gates, custom, hot-rolled steel doors & windows, lighting, grilles, bronze & aluminum entry doors; all cast- & wrought-metal alloys, finishes & architectural styles; since 1940.

SEE OUR AD ON PAGE 13


WROUGHT IRON CONCEPT

718-415-2325; Fax: 718-567-7012

www.wroughtironconcept.com

Staten Island, NY 10303

Manufacturer of metalwork: wrought, cast & forged; bridges; fencing, garden furnishings; lighting; railings; grilles & registers; balusters, stairs & stair parts.



KING METALS
LOS ANGELES
DALLAS
ATLANTA
BALTIMORE

800.542.2379 | KINGMETALS.COM

SEE OUR AD ON BACK COVER

STEEPLES, DOMES & CUPOLAS



Quality Craftsmanship in Roofing & Architectural Sheet Metal Since 1974

**SPECIALISTS IN ROOFING
AND ARCHITECTURAL
SHEET METAL WITH
IN-HOUSE FABRICATION,
WE ENSURE THE HIGHEST
DEGREE OF QUALITY
CONTROL AND COST
EFFECTIVENESS.**

HISTORICAL RESTORATION

INSTITUTIONAL ROOFING

~

COMMERCIAL ROOFING

~

INDUSTRIAL ROOFING

~

HIGH-END RESIDENTIAL ROOFING



CORNICES · CRESTINGS · FINIALS · CUPOLAS · WINDOW SURROUNDS · DOMES
ORNAMENTS · CROSSES · PRESSED METAL CEILING & WALL PANELS



NIKO CONTRACTING CO., INC.

3434 PARKVIEW AVE • PITTSBURGH, PA 15213

412-687-1517 • INFO@NIKOCONTRACTING.COM

WWW.NIKOCONTRACTING.COM



ALLEN ARCHITECTURAL METALS

800-204-3858; Fax: 256-761-1967

www.allenmetals.com

Talladega, AL 35161

Manufacturer of ornamental metal: casting & metal fabrication; street amenities, signage, lighting, columns, building components, doors, cupolas, finials, cresting, architectural elements, canopies, bollards, railings & grilles; variety of alloys & finishes.



GOTHAM METALWORKS

718-786-1774; Fax: 718-786-7214

www.gothammetals.com

Long Island City, NY 11101

Fabricator of sheet-metal products: cornices, cupolas, skylights, railings, capitals, gutters, domes, dormers & custom ornamental stamping; for replications, renovations & new construction projects.



HEATHER & LITTLE LIMITED

800-450-0659; Fax: 905-475-9764

www.heatherandlittle.com

Markham, ON, L3R 0H1 Canada

Fabricator & supplier of historical sheet-metal specialties & architectural sheet-metal components: finials, cornices, leader heads, cresting, metal shingles, pressed-metal wall cladding, cupolas, steeples, domes, reproductions; capitals & balustrades; Kalemein & lot-line metal windows & doors, statuary restoration.



HISTORICAL ARTS & CASTING

800-225-1414; Fax: 801-280-2493

www.historicalarts.com

West Jordan, UT 84081

Designer & custom fabricator of ornamental metal-work: doors, windows, hardware, stairs, balustrades, registers, fences, lighting, gutters, columns, weather-vanes, snow guards, cupolas, planters, fireplace tools & more; iron, bronze, aluminum & steel; restoration services.

SEE OUR AD ON PAGE 73



NEW CONCEPT LOUVERS INC.

801-489-0614; Fax: 801-489-0606

www.newconceptlouvers.blogspot.com

SPANISH FORK, UT 84660

Manufacturer of cupolas & louvers: maintenance-free coated-aluminum in custom & stock sizes; 450 colors; copper finials, weather-vanes, spires, turret caps, copper accessories, dormer vents, mailboxes, shutters, flashing & more.



NIKO CONTRACTING CO., INC.

412-687-1517; Fax: 412-687-7969

www.nikocontracting.com

Pittsburgh, PA 15213

Custom fabricator & contractor of sheet metal & roofing: slate, tile & other roofing; storefronts, cornices, cupolas, domes, steeples, snow guards & leader heads; copper, lead-coated copper, zinc & stainless steel; metal ceilings.

SEE OUR AD ON PAGE 74

CAST & CARVED STONE



BYBEE STONE
812-876-2215; Fax: 812-876-6329
www.bybeestone.com

Bloomington, IN 47402
Supplier of stone-carving & stone-working tools: custom-cut & -carved stone; intricate carvings; exterior restoration.



CLEVELAND QUARRIES
440-963-4008; Fax: 440-963-4011
www.clevelandquarries.com

Vermilion, OH 44089
Stone quarry: processor of Berea Sandstone into slab, split or diamond-finished products; sandstone is squared, shaped, finished & carved to detailed specs by skilled craftsmen.



CONTINENTAL CAST STONE MFG., INC.
800-989-7866; 913-422-7575; Fax: 913-422-3680

www.continentalcaststone.com
Shawnee Mission, KS 66227
Manufacturer of cast-stone architectural products: cornices, columns, capitals, balustrades & ornament; vibrant-dry-tamp method used to get fine-grain texture replicating the look of natural stone; terra-cotta replacements.



DMS STUDIOS
718-937-5648; Fax: 718-937-2609

www.dmsstudios.com
Long Island City, NY 11101
Custom fabricator of hand-carved stone elements: fountains, mantels, statuary, balustrades, capitals & landscape ornament; historically accurate.



HADDONSTONE (USA), LTD.
719-948-4554; Fax: 719-948-4285
www.haddonstone.com

Pueblo, CO 81001
Manufacturer of classical & contemporary cast limestone: columns, balustrades, benches, planters, pavers, fountains, gazebos, interior ornament, mantels, statuary & more; 500+ designs; custom designs.



OLD WORLD STONE CARVING
614-578-2176; Fax: 740-524-0670
www.oldworldstoncarving.com

Sunbury, OH 43074
Custom designer & carver of stone & marble fireplace surrounds: all styles; Classical Georgian architectural ornament, contemporary furniture, fountains, sculpture & more; hand carved & sculpted.



PHOENIX CARVED STONE
512-556-5479; Fax: 512-556-5470
www.phoenixcarvedstone.com

Lampasas, TX 76520
Custom fabricator of cut, carved & turned limestone landscape & architectural stonework: mantels, fountains & statuary; traditional & contemporary designs; provides design services & models as required.



TEXAS CARVED STONE
254-793-2384; Fax: 254-793-2693
www.texascarvedstone.com

Florence, TX 76527
Custom fabricator of hand-carved ornamental limestone: mantels, entries, statuary, fountains & architectural elements; any period or style; restoration carving to ornamental stonework for buildings; restoration services.

To see larger photos and informational captions, visit traditionalbuilding.com/page/the-magazine

Scroll down and click on the Buying Guides link

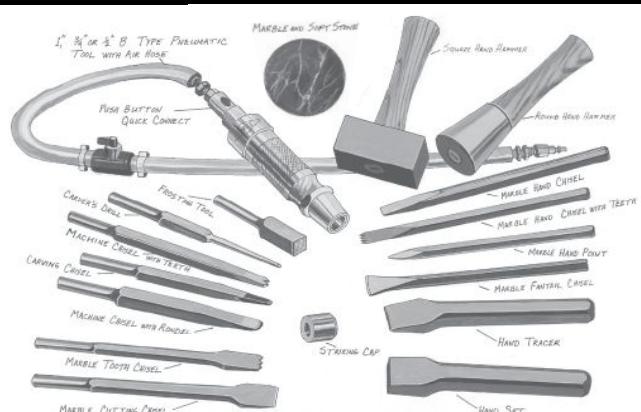


TROW & HOLDEN
800-451-4349; Fax: 802-476-7025
www.trowandholden.com

Barre, VT 05641
Manufacturer of stone-carving tools: air & hand hammers; steel & carbide chisels for soft & hard stone; pneumatic mortar-removal kits for fine repointing work; stone-masonry & -splitting tools.
SEE OUR AD ON PAGE 75



TROW & HOLDEN COMPANY
FINE STONWORKING TOOLS



QUALITY LASTS.

Sculpture tools for marble and soft stone

45 So. Main Street, Barre, VT 05641 • 1-800-451-4349
www.trowandholden.com • Follow us on Facebook • Call for a free catalog.

MADE TO LAST SINCE 1890 IN BARRE, VERMONT USA

SPECIALTY BRICK & MORTAR



ABATRON, INC.
800-445-1754; Fax: 262-653-2019
www.abatron.com

Kenosha, WI 53144
Manufacturer of products for restoration & repair: wood consolidation & repair, window & door restoration, concrete patching & resurfacing, metal restoration, moldmaking & casting, structural adhesives, protective coatings, strippers & related products.

SEE OUR AD ON PAGE 6



AZTEC STONE EMPIRE
770-368-9337; Fax: 770-368-9336
www.aztecstoneempire.com
Norcross, GA 30071

Large inventory including Tennessee fieldstone; Pennsylvania bluestone; boulders; river stone; a wide variety of stack stone; granite; rubble (cut to size); cast stone; concrete pavers; slabs; cobblestones; stone veneer; artificial stone; masonry supplies and more.

SEE OUR AD ON PAGE 7, 61



BELDEN BRICK CO., THE
330-456-0031; Fax: 330-456-2694
www.beldenbrick.com
Canton, OH 44702

Manufacturer of brick: variety of colors, textures, sizes & stock & custom shapes; color matching; jack arches, water tables, bullnoses, coping caps, pavers, face brick, brick sculpture/murals & more.



FREEDOM CEMENT

(508) 867-6100
www.freedomcement.com
North Brookfield, MA 01535

Quality masonry products for historic preservation and new construction, including natural cement, natural hydraulic lime, pre-mixed mortar and Microcotta™.



GAVIN HISTORICAL BRICKS, INC.

319-354-5251; Fax: 319-688-3086
www.historicalbricks.com
Iowa City, IA 52245

Supplier of antique paving & building materials: specialists in new construction with an Old World look as well as historic restoration projects; pavers, cobblestones, clinker brick & more.

SEE OUR AD ON PAGE 76



NAWKAW CORP.
706-355-3217; Fax: 706-355-9199
www.nawkaw.com
Bogart, GA 30622

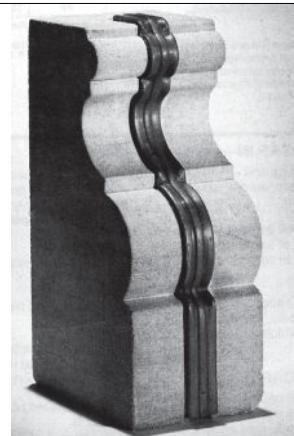
Manufacturer of masonry stains designed to permeate brick, block, mortar, pre-cast, concrete, stucco & manufactured stone: for decorative re-coloring, renovation, restoration & corrective-coloring projects; 25-year warranty.



PHENIX MARBLE

417-840-2281
www.phenixmarble.com
Springfield, MO 65806

Quarry and fabricator of historic Phenix marble and building stone: Napoleon Gray marble; finished marble slabs; full depth and thin split-face veneer; dimensional stone.



WEATHERCAP, INC.

985-649-4000; Fax: 985-847-1237
www.weathercap.net
Slidell, LA 70459

Manufacturer of soft-lead strips: set & bedded in caulking compound/sealant; forms a cap to create a permanent elastic seal for any masonry joint.

SEE OUR AD ON PAGE 76

**GAVIN
HISTORICAL
BRICKS**

319-354-5251

Antique Brick and Stone
Shipped Nationwide Direct:

- Street Pavers
- Granite Cobblestone
- Building Bricks
- Clinker Bricks
- Custom Brick Matching

info@HistoricalBricks.com
www.HistoricalBricks.com



Antique Brewery Bricks



Weathercap®

Joint Protective System
A permanent elastic seal
for any masonry joint,
horizontal or vertical.

We are honored to assist in
the protection of our Supreme
Court Building & National
Cemetery

WEATHERCAP
U.S. PATENT 6,991,400

Weathercap®, Inc.
www.weathercap.net
985-649-4000
f: 985-847-1237


**AGRELL ARCHITECTURAL
CARVING, LTD.**

415-457-4422; Fax: No fax
www.agrellcarving.com

San Rafael, CA 94901

Architectural wood carver & designer: 30 skilled woodcarvers for fast delivery of large custom projects; hand-carved molding, panels, capitals, mantels, appliqués & religious furnishings; complex wood construction & custom furniture.


**CAROLE HALLÉ
WOOD CARVING STUDIO**

718-221-8171

www.carolehalle.com

Brooklyn, NY 11215

Wood carver & restorer of mantels, hand-carved wood panels, doors, staircases & moldings.


**DEBORAH MILLS
WOODCARVING**

646-288-7497; Fax: No fax
www.deborahmillswoodcarving.com

Long Island City, NY 11101

Custom wood carver & sculptor: one-of-a-kind hand-carved liturgical, architectural & decorative elements; torah arks, ecclesiastical furnishings, commemorative plaques, Judaica, doors, screens, mantels, paneling, friezes & more.


ENKEBOLL DESIGNS

800-745-5507; Fax: 310-532-2042

www.enkeboll.com

Carson, CA 90746

Manufacturer of architectural woodcarvings: moldings, corbels, columns, capitals, moldings, arches, panels, mantels, onlays & more; over 1,000 items produced from North American hardwoods; \$50 catalog refundable upon first order; since 1956.


DIMITRIOS KLITSAS

Master Wood Carver

A melding of solid classical foundations with modern-day innovations

Commission a one-of-a-kind collectible from the studio of Master Wood Carver Dimitrios Klitsas

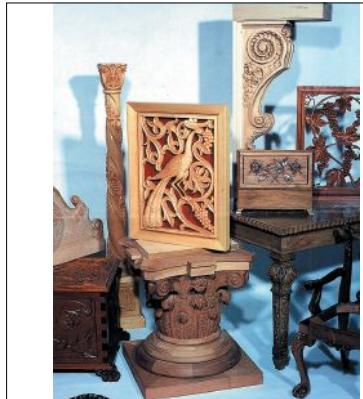
378 North Rd • Hampden, MA 01036 • 413.566.5301
www.klitsas.com


**KHECHOYAN'S CARVINGS
& TOOLS, LLC**

714-743-1117; Fax: Same as phone
www.woodcarver4u.com

Placentia, CA 92871

Wood carver: specializes in Gothic, Baroque, Rococo, Empire, Classical & Modern carvings, inlaid work, incrustations & bone work; carved doors, architectural details, chairs, crosses; restoration of antique woodwork.


**KLITSAS, DIMITRIOS -
FINE WOOD SCULPTOR**

413-566-5301; Fax: 413-566-5307

www.klitsas.com

Hampden, MA 01036

Wood carver: capitals, newel posts, furniture (all periods), fireplace mantels, stairs, moldings & other specialty carvings; variety of wood species.

SEE OUR AD ON PAGE 77


**MICHAEL A. DOW -
WOODCARVER**

207-363-7924; Fax: Same as phone

www.archcarving.com

York, ME 03909

Custom wood carver: any style & wood; architectural, ornamental, furniture, mantels & nautical carvings; molding, capitals & signage; wood turnings, model making & antique carving restoration.

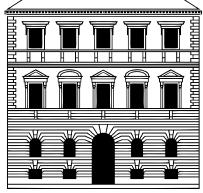

**WILBUR, FREDERICK -
WOODCARVER**

434-263-4827; Fax: No fax

www.frederickwilbur-woodcarver.com

Lovington, VA 22949

Wood carver: ecclesiastical elements, Gothic tracery, reredos & wood screens; columns, furniture, mantels, casing/molding, friezes, rosettes, heraldry, signage & doors; all wood species; original designs; reproductions.



TRADITIONAL BUILDING CONFERENCE

ONLINE EDUCATION

10 AIA
CREDITS
FREE FOR
THE
TAKING

TRADITIONAL TECHNIQUES, ADVANCED EDUCATION

The image shows a person's hands typing on a white laptop keyboard. The laptop screen displays the "TRADITIONAL BUILDING CONFERENCE SERIES" website. The main page features a banner for "Storm Windows 2.0: Form, Function and Fit" on November 27, 2018, at 2pm Eastern. The banner includes a photo of a window and text about the session's objectives. The website navigation bar includes links for REGISTER NOW, SCHEDULE, SPEAKERS, NEWS, SPONSORS, ONLINE EDUCATION, ABOUT, and PALLADIO AWARDS. A red circular badge on the left side of the page says "10 AIA CREDITS FREE FOR THE TAKING". In the bottom right corner of the laptop screen, there is a circular logo for "AIA CONTINUING EDUCATION".

ON DEMAND

GLASS AND WINDOWS:
TECHNOLOGY AND PERFORMANCE
1 AIA HSW Learning Unit

Speaker:

Kyle Sword, Manager Business Development, Pilkington North America



1

ON DEMAND

WINDOW RETROFITS FOR OCCUPANT COMFORT AND ENERGY EFFICIENCY
1 AIA HSW Learning Unit

Speakers:

Russ Eisenberg, Vice President, Sales, Indow



2

ON DEMAND

DESIGNING SECURITY AND SWING:
LOCKS, HINGES AND THEIR APPLICATIONS
1 AIA HSW Learning Unit; .1 IDCEC CEU

Speaker: Betsy O'Day,
Business Development Manager,
Nostalgic Warehouse



3

ON DEMAND

AN INTRODUCTION TO ORNAMENTAL METALS, DISTANCE EDUCATION VERSION
1 AIA HSW Learning Unit

Speaker: Douglas Bracken,
Wiemann Metalcraft



4

ON DEMAND

PROPERTIES AND PERFORMANCE OF VACUUM INSULATED GLAZING
1 AIA HSW Learning Unit

Speaker:

Kyle Sword, Pilkington North America

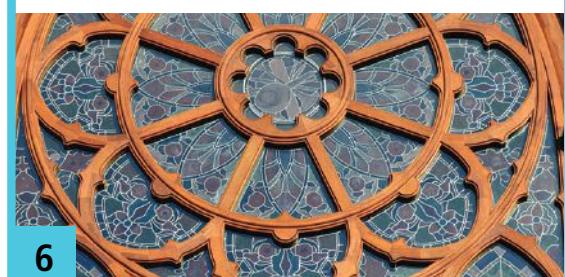


5

ON DEMAND

TRADITIONAL WINDOWS & HISTORIC SETTINGS: DETAILS DETAILS DETAILS

1 AIA HSW Learning Unit
Speaker: Steve Lien, CSI, AIA,
Marvin Windows and Doors



6

ON DEMAND

THE PRESERVATION-MINDED HOMEOWNER IN THE 21ST CENTURY
1 AIA Learning Unit

Speaker: Scott Intagliata, Chief Marketing Officer, The Unico System



7

ON DEMAND

STORM WINDOWS 2.0: FORM, FUNCTION AND FIT
1 AIA HSW Learning Unit

Speaker:

David Martin, President, Allied Window



8

ON DEMAND

PAST, PRESENT AND FUTURE USES OF EXTERIOR SHUTTERS
1 AIA HSW Learning Unit

Speaker: Harry Rembert, Vice President,
New Horizon Shutters



9

ON DEMAND

TERRA COTTA TILE:
COLOR SELECTION AND MATCHING
1 AIA HSW Learning Unit

Speaker: Alicia Cordle,
Ceramic Engineer, Ludowici



10

~ UPCOMING ~ DATE & OTHER DETAILS TO BE ANNOUNCED

WINDOWS AND
HISTORIC HOMES:
REPAIR, REPLACE
AND NEW ADDITIONS
1 AIA HSW Learning Unit

Speaker:

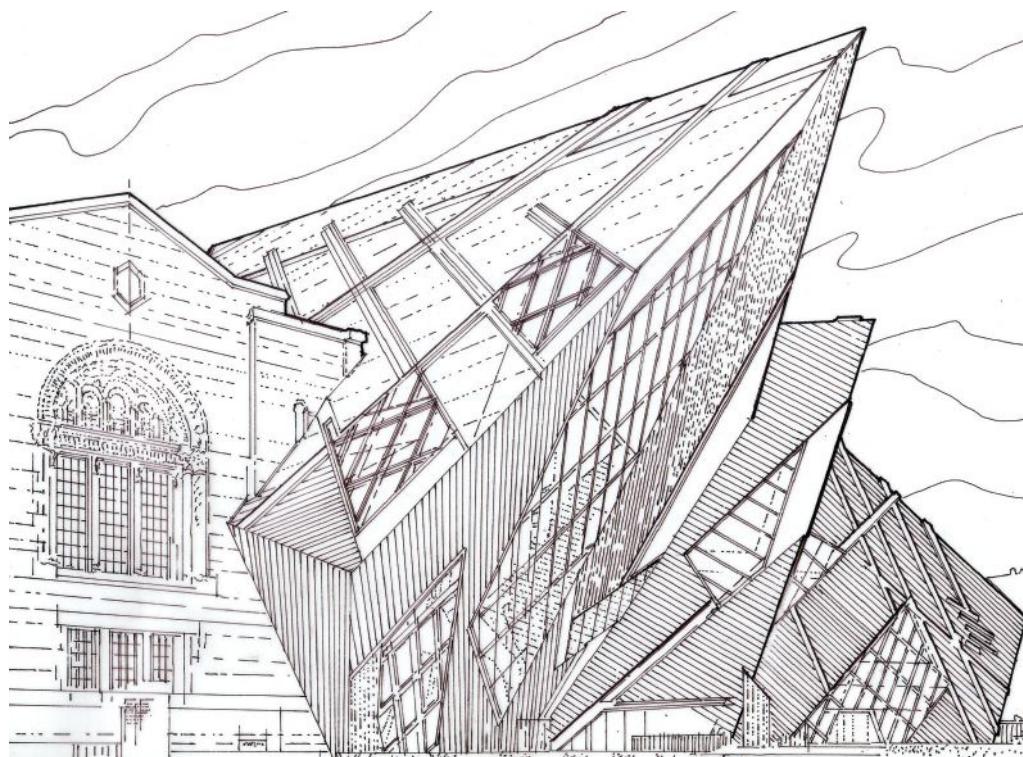
Charles, "Chick" McBrien,
Marvin Windows and Doors

FOR CLASS DESCRIPTIONS,
MORE INFORMATION
OR TO REGISTER, VISIT

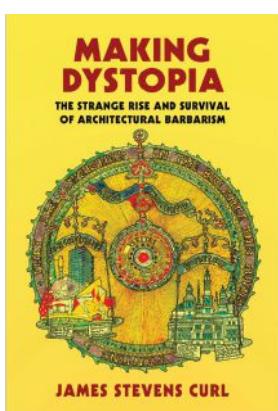
**TRADITIONAL
BUILDING
SHOW.COM**

@TradBldgShow

The Dangers of Modernism



The East Wing of the Royal Ontario Museum in Toronto, Ontario, Canada (1933), was designed by the distinguished Canadian architectural firm of Chapman & Oxley, in a late Byzantino-Romanesque Revival style. It is seemingly being gobbled up by the Deconstructivist 'Michael Lee-Chin Crystal' extension (2002–07), designed by Studio Daniel Libeskind, in collaboration with Canadian architects Bregman & Hamann (later B+H Architects). This expensive Deconstructivist addition was not entirely free from problems associated with the weather (from a drawing of 2016 ©JSC).



**Making Dystopia:
The Strange Rise and Survival
of Architectural Barbarism**

BY JAMES STEVENS CURL
*Introduction by Timothy
Brittain-Catlin*

Oxford University Press,
Oxford, UK, 2018

592 pages;
72 b&w illustrations;
39 figures; \$60
ISBN: 9780198753698

CAN A TEXT ON ARCHITECTURAL HISTORY,

however thoroughly researched and brilliantly written, trigger an architectural revolution? For a discipline in ferment, this might just provide the jolt to set off an avalanche.

Making Dystopia demolishes the legitimacy through which a peculiarly inhuman aesthetic has dominated architectural culture during one century. That includes the latest designs by our Starchitects.

This book presents a comprehensive history of the Bauhaus, of Le Corbusier, the Soviet Constructivists, etc. Those defined the "look" that architecture has conformed to ever since, within an extremely limited palette of variations. Professor Curl lays out how anti-establishment movements at the start of the 20th century generated forces clamoring for a "new" architecture. He traces the unlikely success of anti-traditional design aesthetics as they coagulated into the International Style. Much of this history as presented in "standard" texts has been falsified.

Claims for styles evolving from premodernist architects turn out to be invented. Professor Curl debunks the commonly-cited "good intentions" of modernist pioneers: The reality is a freakish mixture

of cult beliefs and ruthless egos. Most disturbing is the complete disdain for human biology. The modernists offer the building industry a cheap way of constructing massive high-density buildings for maximal profit. Grateful real-estate speculators and powerful car manufacturers exclusively promoted this architectural style in the media.

Today's dominant architectural idiom descends directly from those early disruptive ideas, while traditional buildings remain on the banned list. Society accepts this absolutist situation as inevitable.

This iconoclastic landmark book might change the way we build from now on. It's an outstanding work of scholarship that needs to be read by every architect and architecture student who still possesses a conscience.

NIKOS A. SALINGAROS is a well-known scientist, architectural theorist, and urbanist. He is the co-winner, together with Michael W. Mehaffy, of the 2018 Clem Labine award. The author of several books, Dr. Salingaros is Professor of Mathematics at the University of Texas at San Antonio, and directs research students on architecture and urbanism from universities around the world.



Thumb Turn & Rose



*Emergency Trim Ring
with Swinging Cover*



Shutter Knob



*Cylindrical Floor Stop
with Trim Ring*



*Cylinder Ring
with Swinging Cover*

BB

E. R. BUTLER & CO.

*"FR" Design Series
W.C. Vaughan Co. Collection*

Door Knobs Available in $2\frac{3}{4}$, $2\frac{1}{2}$, $2\frac{1}{4}$, 2 , and $1\frac{3}{4}$ inch Diameters ($2\frac{3}{4}$ in. Shown).

Available in 3 inch Diameters for Use as Center Knobs.

Also Available in $1\frac{1}{2}$, $1\frac{1}{4}$, 1 , and $\frac{3}{4}$ inch Diameters for Cabinets and Fine Furniture.

Solid Turned Brass Knob and Rose.

Standard, Custom Plated and Patinated Finishes Available.

WWW.ERBUTLER.COM

CATALOGUES AVAILABLE TO THE TRADE · SHOWROOMS BY APPOINTMENT ONLY

$\frac{3}{4}$ Scale

FINE ARCHITECTURAL, BUILDERS' AND CABINETMAKERS' HARDWARE

AY SHIPPING

SAME DAY SHIPPING

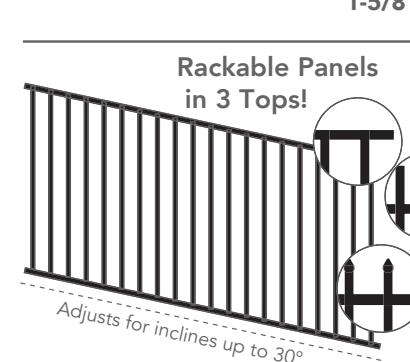
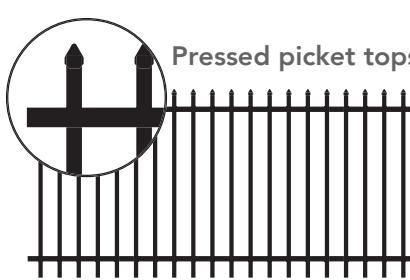
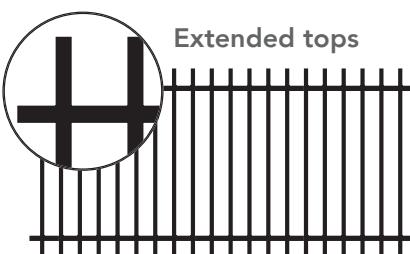
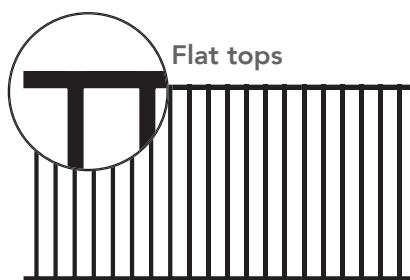
SAME DAY SHIPPING

SAME DAY SHIPPING

SAME DAY SHIPPING

SAME DA

TAKE A CLOSER LOOK



AT OUR 100% GALVANIZED IN & OUT AND POWDERCOATED FENCE PANELS & POSTS

MONUMENT Residential & Rackable

We go the extra mile to 100% Galvanize our pickets and posts prior to premium welding and powder coating.

1

MOLTEN ZINC IMMERSION

Full immersion in a bath of molten zinc, creating a metallurgical bond for extra protection against rust & corrosion.

2

ZINC PHOSPHATE COATING

Zinc phosphate conversion coating is applied, further improving anti-rust protection while promoting the strongest possible adhesion performance to primer.

3

ZINC-RICH PRIMER

Our multi-component, metallic zinc-rich primer is applied providing long-lasting, anti-impaction, and superior corrosion resistance in aggressive environments.

4

POLY-COLOR POWDER COATED FINISH

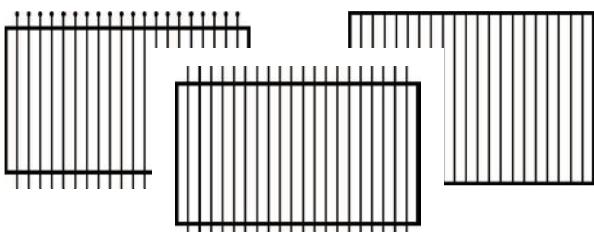
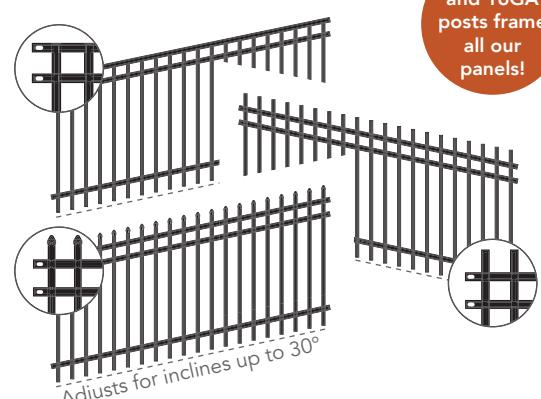
Lastly, our durable exterior poly-color powder coated finish not only provides yet another level of corrosion-resistance, it also delivers abrasion-resistance, along with an easy-clean surface and UV protection for deep, long-lasting color fidelity.

MONUMENT PRO Heavy Duty & Industrial

10 year
WARRANTY

Rackable 3-rail Panels

14GA
and 16GA
posts frame
all our
panels!



Commercial & Heavy Duty Drive Gates

Choose from a large selection of decorative add-ons.

Posts are also available in many sizes & lengths.

Ask about gate hinges & locks when you call!

800.542.2379 | KINGMETALS.COM | FACEBOOK | PINTEREST | YOUTUBE

Live Chat questions and orders with us at KingMetals.com!

KINGMETALS

LOS ANGELES
DALLAS
ATLANTA
BALTIMORE